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NAVAL WEATHER SERVICE DETACHMENT ASHEVILLE N C
SUMMARY OF SYNOPTIC METEOROLOGICAL OBSERVATIONS (SSMO) SOUTH AM--ETC(U)
FEB 79

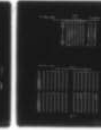
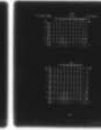
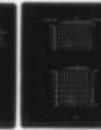
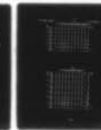
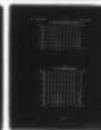
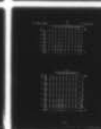
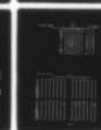
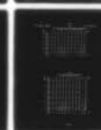
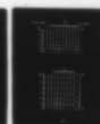
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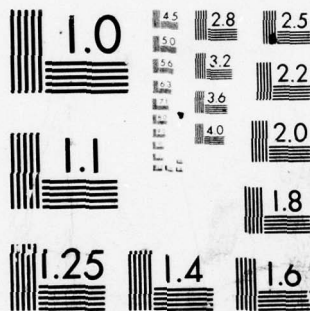
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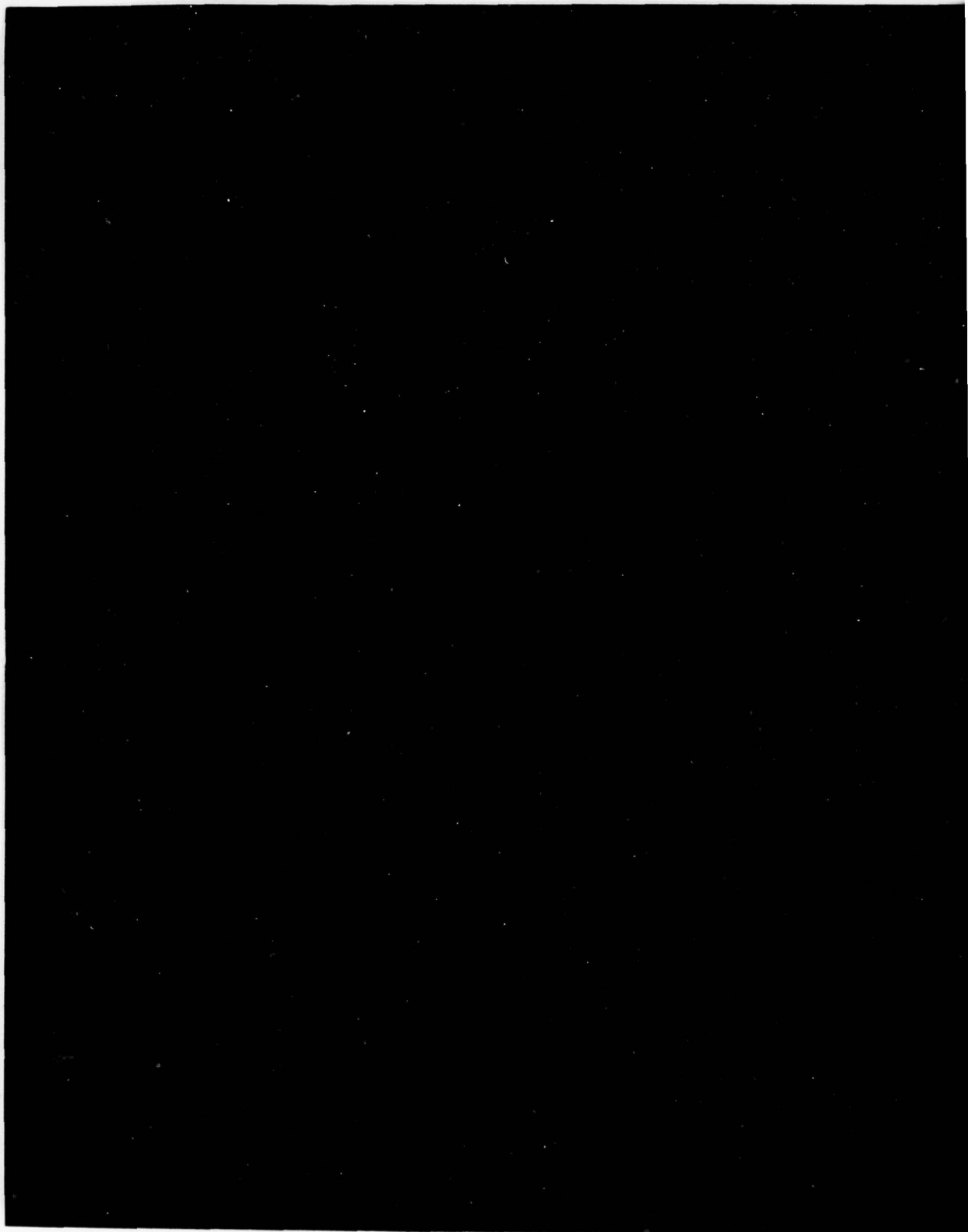




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20. ABSTRACT (Continue on reverse side if necessary and identify by block number) This report presents marine climatological data for specific coastal areas in 21 different tables including weather occurrence, wind direction and speed, cloud amount, ceiling height, visibility, precipitation, dry bulb, relative humidity, air-sea temperature difference, sea height and period, sea surface temperature and sea level pressure.		

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SUMMARY OF SYNOPTIC METEOROLOGICAL OBSERVATIONS (SSMO)

SOUTH AMERICA AND SELECTED ISLAND COASTAL MARINE AREAS
WEST COAST.

VOLUME 5.

AREA 31 - MOLLEDO
AREA 32 - LIMA
AREA 33 - PUNTA NEGRA
AREA 34 - GUAYAQUIL
AREA 35 - BUENAVENTURA SW
AREA 36 - GULF OF PANAMA
AREA 37 - GALAPAGOS ISLANDS.

12 561 p.



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PREPARED BY
THE NAVAL WEATHER SERVICE DETACHMENT, ASHEVILLE, N.C.
FOR
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SUMMARY OF SYNOPTIC METEOROLOGICAL OBSERVATIONS (MONTHLY AND ANNUAL)

The SSMO series of coastal marine summaries is managed and produced by the Naval Weather Service Detachment, Asheville, N. C. for the Commander, Naval Oceanography Command. A list of published SSMO's is contained in the catalogue part of the "Guide to Standard Weather Summaries and Climatic Services", NAVAIR 50-1C-534.

The data summarized in the following tables were obtained from Tape Data Family 11 (TDF-11) Marine Surface Observations. The development and maintenance of TDF-11 was primarily funded by the Naval Weather Service Command. The source of these marine surface observations was punched cards of weather observations taken aboard vessels of varying registry. These observations were recorded on magnetic tape in a common format. Elements not in WMO code were converted to this code where possible. Where this was not possible, the original data were retained within the tape record as supplemental data. A very limited quality control was attempted as the punched cards were converted to taped records and, where possible, missing psychrometric data were computed.

Before the tables are prepared, extreme values of selected parameters are scrutinized so that obvious errors can be excluded. This method is necessarily subjective since the only available record of many observations is the punched card from which the tape records were prepared. Frequently there

Percentage frequencies are computed to hundredths and rounded to tenths. An asterisk (*) indicates percentage frequency > 0 and $< .05$. A value followed by a plus sign indicates greater than or equal to that value (8+ means 8 or greater). NH = low cloud amount (or middle cloud amount when low clouds are not present). The hours given in this publication are GMT.

The geographic position shown on the tables is the central position (centroid) of the observations within the area.

is no concrete evidence to prove or disprove the validity of questionable data.

Also, it should be noted that these data are based upon observations made by ships in passage. Such ships tend to avoid bad weather when possible, thus biasing the data file toward good weather samples.

Because the number of observations may vary from one table to the other, no absolute relationship exists between the tables. As an example, air temperature counts for Tables 13 and 17 may not be identical since only observations containing both air temperature and relative humidity were counted in Table 13 and only those with both temperature and air-sea temperature difference were counted in Table 17. No requirement for simultaneous recording of all elements was made.

The primary period of record is that period (extending back in time from the most recent data) during which eighty percent of the total number of observations were recorded. The overall period is the earliest to the latest observed data used in compiling the tables. Tables 18 and 19 were tabulated from selected decks only and the overall period indicates the period of record of this data source. The primary period for these tables is not shown.

THE TABLES

This value may fall outside irregular areas.

Annual values are computed on the basis of the sum of the monthlies divided by the number of months.

Tables 1 through 19 appear in numerical order for each month, with the annual tables appearing after the tables for December. Tables 20 and 21 appear at the end of the entire series, after the annual summary for Table 19. The series of summaries appear in numerical order by area number.

Table 1 - Percentage Frequency of Weather Occurrence by Wind Direction (8 pts.).

Table 2 - Percentage Frequency of Weather Occurrence by Hour (GMT).

Table 3 - Percentage Frequency of Wind Direction (8 pts.) by Speed and by Hour (GMT). This table includes mean wind speed (kts.) by direction (8 pts.).

Table 3A - Percentage Frequency of Wind Direction (8 pts.) by Speed and by Hour (GMT). This table includes mean wind speed (kts.) by direction.

Table 4 - Percentage Frequency of Wind Speed by Hour (GMT). This table includes mean speed by hour.

Table 5 - Percentage Frequency of Total Cloud Amount (Oktas) by Wind Direction (8 pts.). This table includes mean cloud amount by wind direction.

Table 6 - Percentage Frequency of Ceiling Heights (feet, NH > 4/8) and Occurrence of NH < 5/8 by Wind Direction (8 pts.).

Table 7 - Cumulative Percentage Frequency of Occurrence of Ceiling Height (feet, NH > 4/8) and Visibility (Nautical Miles).

Table 7A - Percentage Frequency of Low Cloud Amount (or Middle Cloud Amount if Low Clouds are not present), and Percentage Frequency of Sky Obscured. Amounts are in Oktas.

Table 8 - Percentage Frequency of Wind Direction (8 pts.) vs. Occurrence or Non-Occurrence of Precipitation at Observation Time with Varying Values of Visibility (Nautical Miles).

Table 9 - Percentage Frequency of Wind Direction (8 pts.) vs. Wind Speed (kts.) with Varying Values of Visibility (Nautical Miles).

Table 10 - Percentage Frequency of Ceiling Heights (feet, NH > 4/8) and Occurrence of NH < 5/8 by Hour (GMT).

Table 11 - Percentage Frequency of Visibility (Nautical Miles) by Hour (GMT).

Table 12 - Cumulative Percentage Frequency of Ranges of Visibility (Nautical Miles) and Ceiling Height (feet, NH > 4/8) by Hour (GMT).

Table 13 - Percentage Frequency of Relative Humidity (%) by Air Temperature (° F.).

Table 14 - Percentage Frequency of Wind Direction (8 pts.) by Air Temperature (° F.).

Table 15 - Means, Extremes, and Percentiles of Air Temperature (° F.) by Hour (GMT). Extreme temperatures are the one maximum and one minimum value appearing in the marine data file. The extremes may be unrepresentative due to sampling errors. Extrapolation from the percentile values usually gives a better estimate of expected extreme conditions.

Table 16 - Percentage Frequency of Relative Humidity (%) by Hour (GMT).

Table 17 - Percentage Frequency of Air Temperature (° F.) and the Occurrence of Fog vs. Air-Sea Temperature Difference (° F.).

Air-Sea Temperature Difference is:

Positive when the air is warmer than the sea surface; Negative when the air is cooler than the sea surface. In the table heading, the limits of the temperature ranges appear in a vertical arrangement along the top of the table.

Table 18 - Percentage Frequency of Surface Wind Speed (kts.) and Direction (8 pts.) vs. Sea Height (feet). Source deck 128 for which data are available from mid-1963 was used for these tables. This deck represents the latest and most complete homogeneous source of wave data available. Here, only sea waves generated by local winds in the vicinity of the observer are summarized.

Table 19 - Percentage Frequency of Wave Height (feet) vs. Wave Period (seconds). In this table when both sea and swell waves are present in an observation, the higher of the two is used. If both are the same height, the longer period is chosen. When only one of the wave groups is observed, either sea or swell, it is used in the summary. Swell waves are those generated by winds distant from the local area where the observation is taken.

Tables 1-19 appear together for each month and in the annual summary. The following two tables appear at the end of the entire series for each area.

Note:

In this volume, percentage frequencies at specified hours of the day refer to percentages of observations taken at those hours, rather than percentages of observations taken at all hours. Data at adjacent hours are summarized with data at synoptic hours, i.e., data from 02 and 04 GMT are combined with data from 03 GMT.

Table 20 - Monthly and Annual Percentage Frequencies and Means of Sea Surface Temperature ($^{\circ}$ F.).

Table 21 - Monthly and Annual Sea Level Pressures (millibars). This table includes means by hour and for all hours, extreme values and percentile values.

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DIRECTION AND WEATHER CODES

CONVERSION OF WIND AND WAVE DIRECTION TO 8 POINTS

A reduced bias system was employed in converting wind and wave directions to 8 points. This method attaches weighting values to observations which overlap two different 8 point sectors and treats them as "decimal observation counts." These decimal quantities are rounded to whole numbers for presentation as "observational counts" in the tables. Figures 1-4 below show the 8 point system with other systems superimposed.

Note: Because of rounding, sub-total sums of "observational counts" may not equal grand totals.

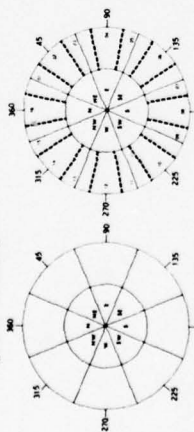


Fig 1. The 8 point direction system.

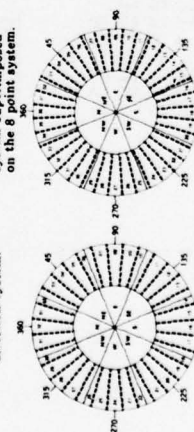


Fig 2. The 16 point direction system superimposed on the 8 point system.

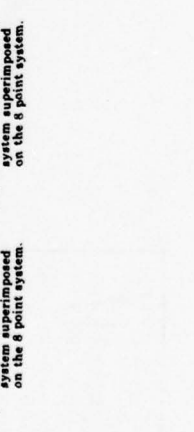


Fig 3. The 32 point direction system superimposed on the 8 point system.



Fig 4. The 36 point direction system superimposed on the 8 point system.

VISIBILITY (VV)		PRESENT WEATHER (1960 WMO CODE 4677)			
CODE	INTERPRETATION (NAUTICAL MILES)	CODE	INTERPRETATION	CODE	INTERPRETATION
90-93	VV<1/2	58-59 60-65 91-94 (68-69, 95, 97 IF TEMP >40°F)	RAIN	10-12 40-49	FOG (WITHOUT PRECIPITATION)
94	1/2≤VV<1	80-82, (83-84 IF TEMP >40°F)		28	FOG (WITHOUT PRECIPITATION) PAST HOUR
95	1≤VV<2	50-55, 58-59	RAIN SHOWERS	04-05	SMOKE HAZE
96	2≤VV<5	56-57 66-67	DRIZZLE	06-09 30-39	SPRAY BLOWING DUST BLOWING SNOW
97	5≤VV<10	70-75, 85-86 (68-69, 83-84, 95, 97 IF TEMP ≤40°F)	FREEZING PRECIPITATION	00-03 14-16 18	NO SIGNIFICANT WEATHER AT OB TIME
98	10≤VV<25	76-79	SNOW	00-49	NO PRECIPITATION AT OB TIME
99	VV≥25	87-90 93-94 96, 99	OTHER FROZEN PRECIPITATION	50-99	PRECIPITATION AT OB TIME
	<means less than; >means greater than; ≤means less than or equal to; ≥means greater than or equal to.	13, 17 19, 29 95-99	HAIL	20-27	PRECIPITATION PAST HOUR
			THUNDER LIGHTNING THUNDERSTORM		

NOTE: The following WMO codes were counted in two weather categories. 58-59 (rain and drizzle); 68-69 (rain and snow); 93-94 (rain and hail); 96 and 99 (hail and thunder/lightning/thunderstorm); 95 and 97 (snow and thunder/lightning/thunderstorm), or (rain and thunder/lightning/thunderstorm).

NOTE: The following WMO codes were counted in two weather categories. 58-59 (rain and drizzle); 68-69 (rain and snow); 93-94 (rain and hail); 96 and 99 (hail and thunder/lightning/thunderstorm); 95 and 97 (snow and thunder/lightning/thunderstorm); or (rain and thunder/lightning/thunderstorm).

WAVE HEIGHT (from source decks 128 and 116)

RECORDED CODE (HALF METERS)	AS RECORDED RANGE (METERS)	AS RECORDED IN TABULATION (FEET)	RECORDED CODE (HALF METERS)	AS RECORDED RANGE (METERS)	AS RECORDED IN TABULATION (FEET)	RECORDED CODE (HALF METERS)	AS RECORDED RANGE (METERS)	AS RECORDED IN TABULATION (FEET)
00	≤.25}	<1	12	>5.75 to 6.25}	20-22	30	>14.75 to 15.25	49-60
01	>.25 to .75}	1-2	13	>6.25 to 6.75}		31	>15.25 to 15.75	
02	>.75 to 1.25}	3-4	14	>6.75 to 7.25}	23-25	32	>15.75 to 16.25	
03	>1.25 to 1.75}	5-6	15	>7.25 to 7.75}		33	>16.25 to 16.75	
04	>1.75 to 2.25}	7	16	>7.75 to 8.25}		34	>16.75 to 17.25	
05	>2.25 to 2.75}	8-9	17	>8.25 to 8.75}	26-32	35	>17.25 to 17.75	
06	>2.75 to 3.25}	10-11	18	>8.75 to 9.25}		36	>17.75 to 18.25	61-70
07	>3.25 to 3.75}	12	19	>9.25 to 9.75}		37	>18.25 to 18.75	
08	>3.75 to 4.25}	13-16	20	>9.75 to 10.25}		38	>18.75 to 19.25	
09	>4.25 to 4.75}		21	>10.25 to 10.75}	33-40	39	>19.25 to 19.75	
10	>4.75 to 5.25}	17-19	22	>10.75 to 11.25}		40	>19.75 to 20.25	
11	>5.25 to 5.75}		23	>11.25 to 11.75}		41	>20.25 to 20.75	
			24	>11.75 to 12.25}		42	>20.75 to 21.25	71-86
			25	>12.25 to 12.75}		43	>21.25 to 21.75	
			26	>12.75 to 13.25}		44	>21.75 to 22.25	
			27	>13.25 to 13.75}	41-48	45	>22.25 to 22.75	
			28	>13.75 to 14.25}		46	>22.75 to 23.25	
			29	>14.25 to 14.75}		47	>23.25 to 23.75	
						48	>23.75 to 24.25	>87
						49	>24.25 to 24.75	
						50	>24.75 to 25.25	
						51	>25.25 to 25.75	
						52	>25.75 to 26.25	
						53-99	>26.25 to 49.75	
								Indeterminate-INDET

PERIOD: (PRIMARY) 1912-1978
(OVER-ALL) 1855-1978

JANUARY

TABLE 1

AREA 0031 MULLENDO
16.25 74.4W

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE								OTHER WEATHER PHENOMENA						
	RAIN	RAIN SHMR	DRZL	FRZG PCPN	SNOW	OTHR FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THOR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST SNOW	NO SIG MEA
N	.0	.0	.0	.0	.0	.0	.0	.0	.0	9.5	.0	.0	9.5	.0	81.0
NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
E	.0	.0	.0	.0	.0	.0	.0	.0	.0	.9	1.9	1.4	3.2	.0	92.6
SE	.4	.1	.2	.0	.0	.0	.0	.7	.5	.2	1.5	.2	1.9	.2	94.9
S	.2	.1	.4	.0	.0	.0	.0	.7	1.2	.1	2.8	.2	1.0	.0	94.1
SW	.0	.0	.0	.0	.0	.0	.0	.0	1.8	.0	2.3	.0	.0	.0	95.9
W	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
NW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.5	10.4	.0	7.5	.0	80.6
TOT PCT	.2														
TOT OBS:	1208	.1	.2	.0	.0	.0	.0	.6	.7	.3	2.5	.2	1.8	.1	93.7

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA								
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THOR LTNG	FDG WD PCPN	FDG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
00003	.0	.0	.3	.0	.0	.0	.0	.3	.3	.0	3.0	.0	2.6	.0	.0	93.7
06009	.0	.3	.3	.0	.0	.0	.0	.6	.6	1.2	2.5	.6	.9	.0	.0	93.5
12015	1.3	.0	.3	.0	.0	.0	.0	1.7	1.7	.0	3.7	.0	2.7	.3	.0	90.0
18021	.0	.0	.3	.0	.0	.0	.0	.3	.3	.0	2.3	.3	1.0	.0	.0	95.8
TOT PCT	.3	.1	.3	.0	.0	.0	.0	.7	.7	.3	2.8	.2	1.8	.1	.0	93.3
TOT OBS:	1230															

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							48+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)						
	0-3	4-10	11-21	22-33	34-47	00	03					06	09	12	15	18	21	
N	.7	.7	.1	.0	.0	.0	1.5	4.5	1.0	9.2	2.1	2.6	1.4	.0	1.0	.4		
NE	.3	.7	.1	.0	.0	.0	1.1	5.6	.6	7.9	1.2	3.5	1.1	.0	.2	.9		
E	1.4	5.1	.8	.0	.0	.0	7.3	6.6	4.9	3.9	8.5	14.9	8.9	7.3	4.7	2.7		
SE	5.1	27.2	8.9	.1	.0	.0	41.3	8.0	40.2	48.7	42.5	36.2	43.2	41.1	42.4	41.6		
S	5.4	19.7	5.1	.1	.0	.0	30.4	7.3	35.9	19.7	28.1	16.6	29.0	29.0	36.0	33.2		
SW	1.0	3.7	.2	.0	.0	.0	5.0	5.7	4.6	5.3	4.3	5.0	3.3	3.2	6.7	6.7		
W	.8	1.1	.0	.0	.0	.0	1.9	4.3	1.4	.0	1.7	3.2	1.6	2.4	1.4	3.6		
NW	.7	.9	.1	.0	.0	.0	1.6	4.7	1.2	.0	1.7	3.5	1.5	.8	1.0	2.0		
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
CALM	9.8						9.8	.0	10.1	5.3	9.8	14.7	10.1	16.1	6.7	8.9		
TOT OBS	789	1843	478	7	0	0	3117		602	19	630	382	545	31	626	282		
TOT PCT	25.3	59.1	15.3	.2	.0	.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0		

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)					TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)				
	0-6	7-16	17-27	28-40	41+				00 03	06 09	12 15	18 21	
N	1.2	.2	.0	.0	.0	1.5	4.5	1.2	2.2	1.3	.8		
NE	.9	.2	.1	.0	.0	1.1	5.6	.8	2.1	1.0	.4		
E	4.0	3.2	.1	.0	.0	7.3	6.6	4.9	10.9	8.8	4.0		
SE	17.5	22.4	1.4	.0	.0	41.3	8.0	40.4	40.1	43.1	42.2		
S	15.8	13.9	.6	.0	.0	30.4	7.3	35.4	23.7	29.0	35.1		
SW	3.4	1.5	.0	.0	.0	5.0	5.7	4.6	4.6	3.3	6.7		
W	1.7	.3	.0	.0	.0	1.9	4.3	1.4	2.3	1.6	2.1		
NW	1.3	.3	.0	.0	.0	1.6	4.7	1.2	2.3	1.4	1.3		
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
CALM	9.8					9.8	.0	10.0	11.7	10.4	7.4		
TOT OBS	1738	1310	67	2	0	3117		6.6	621	1012	576	908	
TOT PCT	55.8	42.0	2.1	.1	.0		100.0		100.0	100.0	100.0	100.0	

PERIOD: (PRIMARY) 1912-1978
(OVER-ALL) 1855-1978

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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)				48+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47					
0000Z	10.0	13.8	61.2	14.8	.2	.0	.0	.0	6.7	100.0	621
0600Z	11.7	17.9	57.7	12.5	.2	.0	.0	.0	6.0	100.0	1012
1201Z	10.4	14.6	59.2	15.5	.3	.0	.0	.0	6.7	100.0	576
1802Z	7.4	14.4	59.3	18.7	.2	.0	.0	.0	7.0	100.0	908
TOT	307	482	1843	478	7	0	0	0	6.6		3117
PCT	9.8	15.5	59.1	15.3	.2	.0	.0	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	.1	.0	.3	.4		6.3
NE	.0	.0	.0	.0		5.5
E	.9	.7	1.2	.7		4.7
SE	11.6	6.9	15.4	9.9		4.8
S	8.7	8.0	15.4	8.7		4.9
SW	1.1	.6	1.2	1.6		5.3
W	.2	.1	.3	.1		4.9
NW	.0	.5	.0	.1		4.1
VAR	.0	.0	.0	.0		5.0
CALM	1.2	.7	1.9	1.4		5.2
TOT OBS	224	105	336	216	941	4.9
TOT PCT	23.8	17.5	35.7	23.0	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NM >4/8)
AND OCCURRENCE OF NM <5/8 BY WIND DIRECTION

	000	150	300	600	1000	2000	3500	5000	6500	8000+	NH <5/8 ANY HGT	TOTAL OBS
	149	299	599	999	1999	3499	4999	6499	7999			
N	.0	.0	.0	.1	.3	.0	.0	.1	.0	.1	.2	
NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
E	.0	.0	.0	.1	.6	.2	.1	.2	.0	.2	2.1	
SE	.3	.1	.5	2.6	6.3	4.4	1.7	.9	.6	.6	25.7	
S	.5	.2	.5	2.5	6.0	4.2	1.8	.5	.3	.9	23.8	
SW	.0	.0	.0	.5	.9	.3	.3	.2	.0	.0	2.4	
W	.0	.0	.0	.0	.0	.0	.0	.0	.2	.1	.4	
NW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.1	.0	.1	.3	.6	.2	.1	.1	.2	.5	2.9	
TOT OBS	8	3	10	27	138	87	38	18	13	23	566	
TOT PCT	.9	.3	1.1	6.1	14.7	9.2	4.0	1.9	1.4	2.4	58.0	941

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE
OF CEILING HEIGHT (NM >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)			VSBY (NM)			VSBY (NM)			VSBY (NM)		
	>10	>5	>2	>1	>1/2	>1/4	>50YD	>10	>5	>2	>1	>1/2
>4500	3.1	3.8	3.9	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
>5000	4.7	5.7	5.8	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9
>5500	8.2	9.5	9.8	9.9	9.9	9.9	9.9	9.9	9.9	9.9	9.9	9.9
>6000	16.4	18.5	19.0	19.1	19.1	19.1	19.1	19.1	19.1	19.1	19.1	19.1
>1000	28.8	33.0	33.7	33.8	33.8	33.8	33.8	33.8	33.8	33.8	33.8	33.8
>600	33.8	39.0	39.7	39.8	39.8	39.8	39.8	39.8	39.8	39.8	39.8	39.8
>500	34.7	39.9	40.7	40.8	40.8	40.8	40.8	40.8	40.8	40.8	40.8	40.8
>150	34.9	40.3	41.0	41.1	41.1	41.1	41.1	41.1	41.1	41.1	41.1	41.1
>0	35.0	40.4	41.3	41.4	41.4	41.4	41.4	41.4	41.4	41.4	41.4	41.4
TOTAL	332	383	392	393	393	393	393	393	393	393	393	393

TOTAL NUMBER OF OBS: 949

PCT FREQ NH <5/8: 58.1

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

	0	1	2	3	4	5	6	7	8	OBSCD	TOTAL OBS
	14.3	13.5	11.7	10.1	8.6	5.6	8.5	11.8	15.2	.7	1009

PERIOD: (PRIMARY) 1912-1978
(OVER-ALL) 1855-1978

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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.1	.2	.3	.0	.0	.0	.0	.2	.7	.7
	TOT %	.0	.0	.1	.2	.3	.0	.0	.0	.0	.2	.7	.7
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.1	.1	*	.0	.0	.0	.0	.1	.3	.3
	TOT %	.0	.0	.1	.1	*	.0	.0	.0	.0	.1	.3	.3
1<2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.1	.1	*	.0	.0	.0	.0	.1	.2	.2
	TOT %	.0	.0	.1	.1	*	.0	.0	.0	.0	.1	.2	.2
2<5	PCP	.0	.0	.0	*	*	.0	.0	.0	.0	.0	.1	.1
	NO PCP	.1	.0	.0	.3	.4	.0	.0	.0	.0	.4	1.2	1.2
	TOT %	.1	.0	.0	.4	.5	.0	.0	.0	.0	.4	1.3	1.3
5<10	PCP	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.2	.2
	NO PCP	.3	.4	1.3	5.2	4.3	.8	.9	.2	.0	.9	14.2	14.2
	TOT %	.3	.4	1.3	5.2	4.5	.8	.9	.2	.0	.9	14.4	14.4
10+	PCP	.0	.0	.0	.2	.1	.0	.0	.0	.0	.0	.2	.2
	NO PCP	.5	.2	3.1	37.4	33.2	3.7	.2	.5	.0	3.9	82.7	82.7
	TOT %	.5	.2	3.1	37.6	33.3	3.7	.2	.5	.0	3.9	82.9	82.9
TOT OBS													1201
TOT PCT		.9	.6	4.5	43.5	38.6	4.5	1.0	.7	.0	5.6	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.1	*	*	.0	.0	.0	.2	.3	.3
	4-10	.0	.0	*	.3	.3	*	.0	.0	.0	.0	.6	.6
	11-21	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1	.1
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	*	.3	.4	.1	*	.0	.0	.2	1.0	1.0
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1	.1
	4-10	.0	.0	.1	.1	.0	.0	.0	.0	.0	.0	.1	.1
	11-21	.0	.0	.0	*	*	.0	.0	.0	.0	.0	.1	.1
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.1	.1	*	.0	.0	.0	.0	.1	.3	.3
1<2	0-3	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1	.2	.2
	4-10	.0	.0	.0	.0	*	*	.0	.0	.0	.0	.1	.1
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.1	*	*	.0	.0	.0	.1	.3	.3
2<5	0-3	.0	.0	.0	.2	.2	.0	.0	.0	.0	.8	1.1	1.1
	4-10	.1	.0	.0	.2	.5	.1	.1	.1	.0	.0	1.0	1.0
	11-21	.0	.1	.0	.2	.0	.0	.0	.0	.0	.0	.3	.3
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.1	.1	.0	.5	.7	.1	.1	.1	.0	.8	2.3	2.3
5<10	0-3	.2	.1	.2	.5	1.0	.3	.3	.1	.0	1.2	4.0	4.0
	4-10	.1	.4	1.0	3.2	2.6	.8	.8	.1	.0	.0	8.7	8.7
	11-21	.1	.0	*	1.0	.8	.0	*	.1	.0	.0	2.1	2.1
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.4	.4	1.3	4.8	4.4	1.1	.9	.2	.0	1.3	14.8	14.8
10+	0-3	.2	.1	.5	3.0	3.4	.6	.4	.2	.0	6.0	14.4	14.4
	4-10	.2	.4	2.6	22.7	20.0	3.6	.3	.4	.0	.0	50.2	50.2
	11-21	.1	.0	.3	8.7	7.0	.3	.0	.0	.0	.0	16.4	16.4
	22+	.0	.0	.0	.1	.1	*	.0	.0	.0	.0	.3	.3
	TOT %	.4	.5	3.4	34.5	30.6	4.5	.7	.6	.0	6.0	81.3	81.3
TOT OBS													1558
TOT PCT		.9	1.0	4.8	40.4	36.1	5.8	1.7	.9	.0	8.5	100.0	

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PERIOD: (PRIMARY) 1912-1978
(OVER-ALL) 1855-1978AREA 0031 HOLLEND
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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NM >4/8) AND
OCCURRENCE OF NM <5/8 BY HOUR

HOURL (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NM <5/8 ANY HGT	TOTAL OBS
00003	.0	.0	.8	6.3	15.4	4.7	6.3	2.4	.8	1.6	38.3	61.7	253
06009	.9	.4	.4	5.3	11.1	13.3	4.9	3.1	3.5	4.4	47.3	52.7	226
12015	2.4	.4	2.4	8.3	16.5	13.0	2.4	1.6	.4	2.0	51.2	48.8	254
18021	.0	.4	.4	3.1	11.8	4.7	2.0	.4	.8	2.4	26.0	74.0	254
TOT	8	3	10	37	141	87	38	18	13	25	400	587	987
PCT	.8	.3	1.0	5.8	14.3	8.8	3.9	1.8	1.3	2.5	40.5	59.5	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOURL (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.0	.0	.3	3.2	13.7	82.8	372
06009	1.3	.7	.4	2.6	17.5	77.4	456
12015	2.3	.3	.0	2.0	15.9	79.5	347
18021	.7	.2	.2	1.7	12.3	84.7	406
TOT	17	5	4	38	236	1281	1581
PCT	1.1	.3	.3	2.4	14.9	81.0	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR
CEILING HGT (FEET, NM >4/8) BY HOUR

HOURL (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND 5+	NM <5/8 AND 5+	TOTAL OBS
00003	.0	.8	11.0	29.7	59.3	246
06009	.9	1.9	8.3	41.2	50.5	216
12015	2.5	5.3	14.3	39.1	46.1	243
18021	.0	1.2	5.3	23.0	71.7	244
TOT	8	22	94	313	542	949
PCT	.8	2.3	9.9	33.0	57.1	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
85/89	.0	.0	.0	.1	.0	.0	.0	.0	1	.1
80/84	.0	.0	.1	.3	1.1	.7	.2	.0	24	2.4
75/79	.0	.0	.0	.3	2.4	5.0	4.6	1.2	133	13.5
70/74	.0	.0	.0	.5	3.5	17.0	23.0	12.4	558	56.5
65/69	.0	.0	.0	.1	.7	2.9	9.1	13.4	259	26.2
60/64	.0	.0	.0	.0	.0	.0	.0	1.3	13	1.3
TOTAL	0	0	1	13	77	253	364	280	988	100.0
PCT	.0	.0	.1	1.3	7.8	25.6	36.8	28.3		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
85/89	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0
80/84	.0	.0	.1	.8	1.3	.1	.0	.0	.0	.1
75/79	.1	.0	.4	5.8	5.6	.7	.1	.0	.0	.7
70/74	.5	.2	2.3	25.6	21.2	2.4	.7	.8	.0	2.8
65/69	.5	.4	1.7	11.8	8.6	1.0	.5	.1	.0	1.7
60/64	.1	.1	.0	.3	.6	.0	.0	.0	.0	.2
TOTAL	1.2	.6	4.5	44.4	37.4	4.3	1.3	.9	.0	5.6

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOURL (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	82	81	76	71	66	63	62	71.1	614
06009	80	76	74	70	65	63	61	69.8	999
12015	82	77	75	70	65	63	61	70.4	561
18021	86	84	81	74	68	65	63	73.8	787
TOT	86	81	78	71	66	63	61	71.3	2961

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOURL (GMT)	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	1.2	5.9	26.8	38.6	27.6	83	234		
06009	.0	.0	3.9	19.7	37.5	39.0	86	259		
12015	.0	1.6	5.2	23.6	35.6	34.0	84	250		
18021	.0	2.9	16.3	32.2	35.1	13.5	79	245		
TOT	0	14	78	257	370	289	83	1008		

PERIOD: (PRIMARY) 1912-1978
(OVER-ALL) 1855-1978

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TABLE 17

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PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	61 64	65 68	69 72	73 76	77 80	81 84	85 88	TOT	W FOG	WD FOG
20/22	.0	.0	.0	.0	.1	.0	.0	1	.0	.1
17/19	.0	.0	.0	.1	.0	.0	.0	1	.0	.1
14/16	.0	.0	.3	.2	.0	.1	.1	7	.1	.5
11/13	.1	.1	.1	.5	.7	.6	.1	24	.1	2.1
9/10	.0	.5	1.2	.7	.4	.3	.0	34	.2	2.9
7/8	.0	.4	1.5	.5	.8	.5	.0	42	.2	3.6
6	.0	.5	1.4	.7	.5	.3	.1	37	.3	3.1
5	.1	.8	1.7	1.6	1.4	.2	.0	64	.4	5.4
4	.3	1.3	2.1	2.3	.5	.1	.0	71	.6	5.8
3	.3	1.4	2.5	2.0	.5	.0	.0	78	.2	6.9
2	.3	2.4	4.4	2.9	.6	.1	.0	119	.6	10.1
1	.1	1.8	5.2	4.1	.8	.0	.0	133	.1	11.9
0	.5	2.8	7.5	4.9	.2	.0	.0	175	.3	15.5
-1	.1	.7	6.6	4.1	.2	.0	.0	129	.0	11.6
-2	.0	1.7	3.8	1.0	.1	.0	.0	73	.0	6.6
-3	.0	.6	2.8	1.4	.1	.0	.0	55	.0	5.0
-4	.0	.6	2.3	.4	.0	.0	.0	36	.0	3.2
-5	.0	.2	.5	.4	.0	.0	.0	12	.0	1.1
-6	.1	.3	.3	.2	.0	.0	.0	9	.0	.8
-7/-8	.0	.0	.4	.1	.0	.0	.0	5	.0	.5
-9/-10	.0	.1	.1	.1	.0	.0	.0	3	.0	.3
TOTAL	19	180	494	310	78	24	3	1108	3.0	107.0
PCT	1.7	16.2	44.6	28.0	7.0	2.2	.3	100.0	3.0	97.0

PERIOD: (OVER-ALL) 1963-1978

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	N						PCT	NE						PCT
	1-3	4-10	11-21	22-33	34-47	48+		1-3	4-10	11-21	22-33	34-47	48+	
<1	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1
1-2	.2	.0	.2	.0	.0	.0	.5	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.2	.0	.2	.0	.0	.0	.5	.0	.1	.0	.0	.0	.0	.1

HGT	E						PCT	SE						PCT
	1-3	4-10	11-21	22-33	34-47	48+		1-3	4-10	11-21	22-33	34-47	48+	
<1	.0	.8	.0	.0	.0	.0	.8	.5	2.7	.1	.0	.0	.0	3.3
1-2	.0	2.1	.2	.0	.0	.0	2.3	2.1	13.9	4.2	.0	.0	.0	20.2
3-4	.0	1.0	.4	.0	.0	.0	1.4	.1	5.1	8.2	.0	.0	.0	13.4
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.5	4.0	.0	.0	.0	4.5
7	.0	.0	.0	.0	.0	.0	.0	.0	.5	1.8	.0	.0	.0	2.3
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.1	.2	.0	.0	.0	.3
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	3.9	.7	.0	.0	.0	4.6	2.6	22.9	18.5	.0	.0	.0	44.0

PERIOD: (OVER-ALL) 1963-1978

JANUARY

AREA 0031: MOLLENDU
16.25 76.4W

TABLE 18 (COUNT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	1.0	2.2	.7	.0	.0	.0	3.3	.0	.7	.0	.0	.0	.0	.7
1-2	.8	16.4	3.5	.0	.0	.0	20.7	.1	1.6	.0	.0	.0	.0	1.7
3-4	.4	5.4	4.8	.0	.0	.0	10.6	.0	.7	.4	.0	.0	.0	1.1
5-6	.0	.7	2.1	.0	.0	.0	3.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.4	1.1	.0	.0	.0	1.8	.0	.1	.0	.0	.0	.0	.1
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	2.2	25.7	11.9	.0	.0	.0	39.7	.1	3.2	.4	.0	.0	.0	3.6

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.2	.0	.0	.0	.0	.0	.2	.0	.2	.0	.0	.0	.0	.2	
1-2	.0	.7	.2	.0	.0	.0	.9	.5	.0	.3	.0	.0	.0	.8	
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.2	.7	.2	.0	.0	.0	1.1	.5	.2	.3	.0	.0	.0	1.0	94.7

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	6.9	6.7	.2	.0	.0	.0	13.8	
1-2	5.0	34.3	8.6	.0	.0	.0	47.9	
3-4	.5	12.1	13.6	.0	.0	.0	26.2	
5-6	.0	1.2	6.2	.0	.0	.0	7.4	
7	.0	1.2	2.9	.0	.0	.0	4.0	
8-9	.0	.5	.2	.0	.0	.0	.7	
10-11	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	12.4	56.0	31.7	.0	.0	.0	100.0	420

PERIOD: (OVER-ALL) 1949-1978

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	1.7	11.4	18.1	5.6	1.2	.9	.1	.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	324
6-7	.5	2.7	9.4	10.4	3.9	.6	.1	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	228
8-9	.0	1.1	3.2	4.3	3.9	1.0	.4	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	114
10-11	.0	.4	2.0	2.1	2.0	1.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	62
12-13	.0	.0	1.1	.4	1.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	24
>13	.0	.0	.0	.4	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	5
INDET	3.2	1.7	1.3	1.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	61
TOTAL	44	141	287	198	101	30	9	6	2	0	0	0	0	0	0	0	0	0	0	0	818
PCT	5.4	17.2	35.1	24.2	12.3	3.7	1.1	.7	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0

PERIOD: (PRIMARY) 1913-1978
(OVER-ALL) 1874-1978

FEBRUARY

AREA 0031 MOLLEND
16.25 74.3W

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							NO SIG WEA
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST SNOW	
N	50.0	.0	.0	.0	.0	.0	.0	50.0	.0	.0	.0	.0	.0	.0	50.0
NE	14.3	.0	.0	.0	.0	.0	.0	14.3	.0	.0	.0	.0	.0	.0	85.7
E	.0	.0	.0	.0	.0	.0	.0	.0	.0	.9	.9	.0	6.3	.0	91.9
SE	.0	.0	.2	.0	.0	.0	.0	.2	.4	.1	2.8	.4	2.8	.0	93.3
S	.3	.0	.2	.0	.0	.0	.0	.5	.3	.0	3.5	.3	3.1	.0	92.3
SW	.0	.0	.0	.0	.0	.0	.0	.0	1.0	.0	6.2	.0	8.2	.0	84.5
W	.0	.0	17.4	.0	.0	.0	.0	17.4	13.0	.0	13.0	.0	.0	.0	56.5
NW	8.3	.0	.0	.0	.0	.0	.0	8.3	.0	.0	8.3	.0	.0	.0	83.3
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	16.2	.0	4.4	.0	79.4
TOT PCT	.3	.0	.3	.0	.0	.0	.0	.6	.4	.1	4.0	.3	3.3	.0	91.4
TOT OBS:	1034														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							NO SIG WEA
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST SNOW	
00003	.3	.0	.3	.0	.0	.0	.0	.7	.0	.3	1.7	.0	2.4	.0	94.8
06009	.4	.0	.4	.0	.0	.0	.0	.7	1.5	.4	4.9	.0	2.6	.0	89.9
12015	.4	.0	.4	.0	.0	.0	.0	.8	.0	.0	6.8	.4	3.8	.0	88.2
18021	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3.7	.8	4.1	.0	91.5
TOT PCT	.3	.0	.3	.0	.0	.0	.0	.6	.4	.2	4.2	.3	3.2	.0	91.2
TOT OBS:	1067														

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)						48+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)						
	0-3	4-10	11-21	22-33	34-47	00					03	06	09	12	15	18	21
N	.3	.3	.1	.0	.0	.0		.6	5.5	.6	.0	.4	.9	.7	.0	.9	.0
NE	.3	1.2	.0	.0	.0	.0		1.6	6.1	1.0	.0	1.9	3.8	2.0	.0	.9	.4
E	2.4	6.0	1.6	.0	.0	.0		10.0	6.8	8.6	.0	11.4	15.9	12.5	.0	7.8	5.1
SE	5.8	31.4	12.1	.3	.0	.0		49.5	8.2	45.2	50.8	51.4	45.0	51.1	65.9	50.8	52.6
S	4.3	15.2	5.2	.0	.0	.0		24.7	7.5	30.8	40.2	20.0	15.4	23.6	22.0	29.4	23.6
SW	1.3	1.7	.3	.0	.0	.0		3.3	5.5	3.8	3.0	2.5	3.4	1.6	3.0	3.6	6.2
W	.3	.3	.0	.0	.0	.0		.6	3.9	1.3	.0	1.0	.6	.0	.0	.2	.4
NW	.4	.4	.0	.0	.0	.0		.9	4.2	1.0	.0	1.3	1.2	.2	.0	1.0	.8
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	8.8							8.8	.0	7.8	6.1	10.1	13.7	8.2	9.1	5.4	10.9
TOT OBS	676	1549	545	10	0	0	2830		6.9	576	93	954	328	510	33	539	257
TOT PCT	23.9	56.5	19.3	.4	.0	.0		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	0-6	WIND SPEED (KNOTS)				41+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)			
		7-16	17-27	28-40	00 03					06 09	12 15	18 21	
N	.5	.1	*	.0	.0	.6	5.5	.6	.6	.7	.6		
NE	.9	.6	*	.0	.0	1.6	6.1	.9	2.6	1.9	.8		
E	5.7	3.9	.4	.0	.0	10.0	6.8	8.1	13.0	11.7	6.9		
SE	21.0	26.5	2.0	.1	.0	49.5	8.2	45.5	49.0	52.0	51.4		
S	12.4	11.6	.8	.0	.0	24.7	7.5	31.3	18.3	23.5	27.5		
SW	2.2	1.1	.0	.0	.0	3.3	5.5	3.7	2.9	1.7	4.4		
W	.5	.1	.0	.0	.0	.6	3.9	1.2	.9	.0	.3		
NW	.8	.1	* 1.0	.0	.0	.9	4.2	.9	1.3	.2	.9		
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
CALM	8.8					8.8	.0	7.7	11.5	8.3	7.2		
TOT OBS	1493	1245	90	2	0	2830		609	882	543	796		
TOT PCT	52.8	44.0	3.2	.1	0		100.0	100.0	100.0	100.0	100.0		

FEBRUARY

PERIOD: (PRIMARY) 1913-1978
(OVER-ALL) 1874-1978AREA 0031 MOLLEND
16.25 74.3W

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)				48+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47					
00&03	7.7	17.1	56.3	18.6	.3	.0	.0	.0	6.8	100.0	609
06&09	11.5	15.9	55.6	16.8	.3	.0	.0	.0	6.5	100.0	882
12&15	8.3	14.4	57.3	17.9	.2	.0	.0	.0	6.9	100.0	543
18&21	7.2	13.1	55.8	23.5	.5	.0	.0	.0	7.6	100.0	796
TOT	250	426	1599	545	10	0	0	0	6.9		2830
PCT	8.8	15.1	56.5	19.3	.4	.0	.0	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	.0	.0	.0	.1	8.0	
NE	.2	.1	.1	.4	4.8	
E	1.8	1.3	1.1	.6	3.8	
SE	14.9	11.2	18.7	8.0	4.4	
S	9.3	6.1	10.5	5.5	4.4	
SW	1.5	*	.5	.2	2.6	
W	.1	.0	.2	.3	6.2	
NW	.0	.0	.2	.1	7.2	
VAR	.0	.0	.0	.0	.0	
CALM	2.2	1.6	1.5	1.6	4.2	
TOT OBS	248	168	270	139	825	4.4
TOT PCT	30.1	20.4	32.7	16.8	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NM >4/8)
AND OCCURRENCE OF NM <5/8 BY WIND DIRECTION

	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH <5/8 ANY HGT	TOTAL OBS
N	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0
NE	.0	.0	.1	.1	.1	.0	.0	.0	.0	.0	.0	.5
E	.0	.0	.0	.2	.5	.2	.0	.1	.0	.1	.1	3.8
SE	.5	.2	.4	2.8	6.8	5.2	1.7	.5	.6	.5	.5	33.7
S	.1	.0	.1	2.4	3.1	2.6	1.0	.5	.5	.1	.1	21.2
SW	.0	.0	.0	.0	.2	.0	.1	.0	.0	.0	.0	1.9
W	.1	.0	.0	.0	.4	.0	.0	.0	.0	.0	.0	.1
NW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.4	.1	.0	.4	.7	.2	.0	.0	.0	.1	.2	4.6
TOT	9	3	6	48	98	68	23	9	10	8	543	825
TOT PCT	1.1	.4	.7	5.8	11.9	8.2	2.8	1.1	1.2	1.0	65.8	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE
OF CEILING HEIGHT (NM >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)				OR				OR 20
	>10	>5	>2	>1	>1/2	>1/4	>50YD		
>6500	1.7	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
>5000	2.6	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3
>3500	5.2	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1
>2000	13.1	14.3	14.4	14.4	14.4	14.4	14.4	14.4	14.4
>1000	23.6	26.1	26.6	26.7	26.7	26.7	26.7	26.7	26.7
>600	28.6	31.6	32.2	32.3	32.3	32.3	32.3	32.3	32.3
>300	29.0	32.2	32.8	33.1	33.1	33.1	33.1	33.1	33.1
>150	29.2	32.6	33.2	33.4	33.4	33.4	33.4	33.4	33.4
>0	29.4	33.1	33.6	33.9	33.9	34.1	34.5	34.6	34.6
TOTAL	249	280	285	287	287	289	292	293	

TOTAL NUMBER OF OBS: 847

PCT FREQ NH <5/8: 65.4

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	OBSCD	TOTAL OBS
17.1	14.9	13.4	9.7	8.9	6.0	7.9	9.6	11.7	.8	917

PERIOD: (PRIMARY) 1913-1978
(OVER-ALL) 1874-1978

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AREA 0031 MOLLEND
16.25 74.3W

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.1	.3	.1	.1	*	.0	.4	1.0	
	TOT %	.0	.0	.0	.1	.3	.1	.1	*	.0	.4	1.0	
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	*	*	.0	.0	.0	.0	.0	.1	
	TOT %	.0	.0	.0	*	*	.0	.0	.0	.0	.0	.1	
1<2	PCP	.1	.0	.0	.0	.0	.0	.0	*	.0	.0	.1	
	NO PCP	.0	.0	.0	.1	.1	.0	.0	.0	.0	.1	.3	
	TOT %	.1	.0	.0	.1	.1	.0	.0	*	.0	.1	.4	
2<5	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.1	.4	.5	.0	.0	.0	.0	.3	1.3	
	TOT %	.0	.0	.1	.4	.5	.0	.0	.0	.0	.3	1.3	
5<10	PCP	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.1	
	NO PCP	.0	.0	.3	5.8	2.8	.2	.1	*	.0	1.5	10.8	
	TOT %	.0	.1	.3	5.8	2.8	.2	.1	*	.0	1.5	10.9	
10+	PCP	.0	.0	.0	.1	.1	.0	.1	.0	.0	.0	.3	
	NO PCP	.1	.6	4.7	43.8	30.1	2.0	.3	.2	.0	4.3	86.1	
	TOT %	.1	.6	4.7	44.0	30.1	2.0	.4	.2	.0	4.3	86.4	
TOT OBS													1026
TOT PCT		.1	.7	5.1	50.5	33.8	2.4	.6	.3	.0	6.5	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.1	.0	.0	.0	.0	.4	.5	
	4-10	.0	.0	.0	.3	.2	.1	.0	.0	.0	.0	.5	
	11-21	.0	.0	.0	.0	.0	.0	.1	*	.0	.0	.1	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.3	.2	.1	.1	*	.0	.4	1.1	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	*	*	.0	.0	.0	.0	.0	.1	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	*	*	.0	.0	.0	.0	.0	.1	
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1	
	4-10	.0	.0	.0	.1	.1	.0	.0	.0	.0	.0	.2	
	11-21	.1	.0	.0	.0	.0	.0	.0	*	.0	.1	.1	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.1	.0	.0	.1	.1	.0	.0	*	.0	.1	.4	
2<5	0-3	.0	.0	.1	.3	.1	.0	.0	.0	.0	.2	.7	
	4-10	.0	.0	.0	.2	.4	.0	.0	.0	.0	.0	.6	
	11-21	.0	.0	.0	.1	.1	.0	.0	.0	.0	.0	.1	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.1	.5	.6	.0	.0	.0	.0	.2	1.4	
5<10	0-3	.0	.0	.1	.7	.3	.1	.1	*	.0	1.7	2.9	
	4-10	.0	.1	.3	4.1	1.9	.2	.0	.0	.0	.0	6.6	
	11-21	.0	.0	.0	1.2	.6	.1	.0	.0	.0	.0	1.8	
	22+	.0	.0	.0	*	*	.0	.0	.0	.0	.0	.1	
	TOT %	.0	.1	.4	6.0	2.8	.4	.1	*	.0	1.7	11.4	
10+	0-3	.0	.1	1.1	3.8	4.0	.8	.1	.0	.0	5.2	15.0	
	4-10	.1	.5	3.5	25.4	17.0	1.2	.3	.0	.0	.0	48.2	
	11-21	.0	.1	1.2	13.3	7.3	.3	.0	.0	.0	.0	22.3	
	22+	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.1	
	TOT %	.1	.6	5.8	42.6	28.4	2.2	.4	.3	.0	5.2	85.6	
TOT OBS													1391
TOT PCT		.1	.7	6.4	49.6	32.2	2.7	.5	.3	.0	7.5	100.0	

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PERIOD: (PRIMARY) 1913-1978
(OVER-ALL) 1874-1978AREA 0031 MOLLENDU
16.25 74.3W

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NH $\geq 4/8$) AND
OCCURRENCE OF NH $\leq 5/8$ BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH $\leq 5/8$ ANY HGT	TOTAL OBS
00003	.4	1.3	2.1	6.0	11.9	6.8	3.4	2.1	.9	.0	34.9	65.1	235
06009	1.4	.0	.5	6.5	13.6	8.9	2.3	.5	.5	1.4	35.5	64.5	214
12015	2.2	.0	.0	4.9	14.7	9.3	3.1	.9	2.2	.9	38.2	61.8	225
18021	.5	.0	.0	4.3	7.2	6.7	1.9	.5	1.4	1.4	24.0	76.0	208
TOT	10	3	6	48	105	70	24	9	11	8	294	588	882
PCT	1.1	.3	.7	5.4	11.9	7.9	2.7	1.0	1.2	.9	33.3	66.7	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NH) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.3	.0	.0	1.7	9.8	88.3	358
06009	1.5	.2	.5	1.2	13.7	82.8	401
12015	2.2	.0	.3	2.5	12.2	82.8	319
18021	.6	.0	.6	.9	10.4	87.6	347
TOT	16	1	5	22	165	1216	1425
PCT	1.1	.1	.4	1.5	11.0	85.3	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NH) AND/OR
CEILING HGT (FEET, NH $\geq 4/8$), BY HOUR

HOUR (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND 5+	NH $\leq 5/8$ AND 5+	TOTAL OBS
00003	.5	4.1	11.8	25.8	62.4	221
06009	1.5	2.0	10.2	27.3	62.4	205
12015	2.3	3.2	10.9	30.9	58.2	220
18021	.5	.5	6.0	19.9	74.1	201
TOT	10	21	83	221	543	847
PCT	1.2	2.5	9.8	26.1	64.1	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
85/89	.0	.0	.0	.0	.1	.1	.0	.0	2	.2
80/84	.0	.0	.0	.3	2.1	1.3	.4	.2	40	4.4
75/79	.0	.0	.2	.2	3.4	11.2	9.7	2.9	251	27.7
70/74	.1	.0	.0	.4	3.3	12.0	19.6	15.0	458	50.5
65/69	.0	.0	.0	.0	.1	.7	6.0	9.0	143	15.8
60/64	.0	.0	.0	.0	.0	.0	.3	1.1	13	1.4
TOTAL	1	0	2	9	82	230	327	256	907	100.0
PCT	.1	.0	.2	1.0	9.0	25.4	36.1	28.2		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
85/89	.0	.0	.0	.1	.1	.0	.0	.0	.0	.0
80/84	.0	.0	.1	2.5	1.6	.1	.0	.0	.0	.1
75/79	.2	.4	1.0	16.9	7.5	.8	.1	.2	.0	.7
70/74	.0	.6	2.1	26.5	16.7	1.1	.2	.2	.0	3.1
65/69	.0	.1	1.2	8.4	3.9	.6	.1	.0	.0	1.4
60/64	.0	.0	.2	.7	.4	.0	.0	.0	.0	.1
TOT	.2	1.0	4.6	55.1	30.2	2.6	.4	.5	.0	5.4

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	82	80	78	73	67	64	63	72.5	601
06009	80	77	75	71	65	64	62	70.7	882
12015	84	80	77	72	65	63	61	71.9	528
18021	88	85	81	75	68	65	63	75.0	669
TOT	88	82	79	73	66	64	61	72.4	2700

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	1.8	5.9	26.5	32.9	32.9	83	219		
06009	.0	.8	3.4	22.3	36.6	37.0	85	238		
12015	.0	.0	4.6	24.2	35.8	35.4	85	240		
18021	.4	2.5	20.7	28.1	36.4	12.0	78	242		
TOT	1	12	82	237	333	274	83	939		

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PERIOD: (PRIMARY) 1913-1978
(OVER-ALL) 1874-1978

TABLE 17

AREA 0031 MOLLENOO
16.25 74.3WPCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	61 64	65 68	69 72	73 76	77 80	81 84	85 88	TOT	W FOG	WD FOG
17/19	.0	.0	.0	.1	.0	.0	.0	1	.0	.1
14/16	.0	.1	.2	.3	.1	.1	.0	8	.1	.7
11/13	.1	.3	.4	.4	.3	.6	.0	21	.1	2.1
9/10	.0	.3	.7	1.8	.6	.4	.2	39	.2	3.9
7/8	.1	.9	1.3	1.9	1.0	.3	.0	51	.4	5.0
6	.0	.4	1.1	.9	.2	.3	.0	27	.0	2.9
5	.1	.6	.9	1.9	.6	.7	.0	46	.3	4.6
4	.1	.6	1.8	1.8	.4	.1	.0	46	.7	4.1
3	.3	1.7	1.6	2.0	1.3	.0	.0	65	.2	6.7
2	.3	1.3	3.5	4.6	1.7	.0	.0	107	.7	10.6
1	.1	1.0	3.0	4.3	2.7	.1	.0	104	.3	10.7
0	.1	1.2	3.9	7.0	1.7	.1	.0	132	.4	13.6
-1	.0	.7	3.3	6.5	1.3	.0	.0	113	.2	11.8
-2	.1	1.0	2.9	5.2	.3	.0	.0	91	.2	9.5
-3	.0	.2	1.1	2.1	.3	.0	.0	35	.0	3.7
-4	.0	.2	1.1	1.4	.2	.0	.0	27	.1	2.8
-5	.0	.0	.4	1.2	.1	.0	.0	16	.1	1.6
-6	.0	.0	.3	.4	.0	.0	.0	7	.0	.7
-7/-8	.0	.1	.2	.1	.0	.0	.0	4	.0	.4
-9/-10	.0	.0	.0	.1	.0	.0	.0	1	.0	.1
TOTAL	13	100	260	414	123	27	2	941	40	901
PCT	1.4	10.6	27.6	44.0	13.3	2.9	.2	100.0	4.3	95.7

PERIOD: (OVER-ALL) 1963-1978

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	N 22-33	34-47	48+	PCT	1-3	4-10	11-21	NE 22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.0	.0	.0	.0	.0	.0	.0	.8	.0	.0	.0	.0	.8

HGT	1-3	4-10	11-21	E 22-33	34-47	48+	PCT	1-3	4-10	11-21	SE 22-33	34-47	48+	PCT
<1	.0	1.1	.0	.0	.0	.0	1.1	1.4	1.7	.0	.0	.0	.0	3.1
1-2	.0	1.7	1.1	.0	.0	.0	2.8	.9	20.0	7.3	.0	.0	.0	28.2
3-4	.0	.9	1.3	.0	.0	.0	2.3	.0	6.2	10.8	.3	.0	.0	17.2
5-6	.0	.0	.3	.0	.0	.0	.3	.1	.9	4.2	.0	.0	.0	5.2
7	.0	.0	.3	.0	.0	.0	.3	.0	.3	.7	.0	.0	.0	1.3
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	.0	.0	.0	.3
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	.0	.0	.0	.3
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	3.8	2.9	.0	.0	.0	6.7	2.3	29.3	23.6	.3	.0	.0	55.5

PERIOD: (OVER-ALL) 1963-1978

FEBRUARY

AREA 0031 MOLLEND
16.25 74.3W

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.2	1.5	.0	.0	.0	.0	1.7	.1	.0	.0	.0	.0	.0	.1	
1-2	1.0	8.7	4.0	.0	.0	.0	13.7	.5	.3	.0	.0	.0	.0	.9	
3-4	.2	2.5	6.6	.0	.0	.0	9.3	.1	.1	.3	.0	.0	.0	.4	
5-6	.2	1.3	2.7	.0	.0	.0	4.2	.0	.0	.0	.0	.0	.0	.0	
7	.0	.3	1.1	.0	.0	.0	1.4	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	1.6	14.3	14.5	.0	.0	.0	30.4	.7	.4	.3	.0	.0	.0	1.4	

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.4	.0	.0	.0	.0	.0	.4	.0	.3	.0	.0	.0	.0	.3	
1-2	.0	.0	.2	.0	.0	.0	.2	.0	.3	.1	.0	.0	.0	.3	
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.4	.0	.2	.0	.0	.0	.6	.0	.5	.1	.0	.0	.0	.6	96.0

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT DBS
<1	8.1	4.4	.0	.0	.0	.0	12.5	
1-2	2.3	31.6	12.3	.0	.0	.0	46.2	
3-4	.3	9.4	18.5	.3	.0	.0	28.5	
5-6	.3	2.1	7.0	.0	.0	.0	9.4	
7	.0	.8	2.1	.0	.0	.0	2.9	
8-9	.0	.0	.3	.0	.0	.0	.3	
10-11	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.3	.0	.0	.0	.3	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	11.0	48.3	40.5	.3	.0	.0	100.0	383

PERIOD: (OVER-ALL) 1949-1978

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-46	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	3.1	8.9	16.3	6.7	1.2	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	251	3
6-7	.0	2.3	10.8	13.2	4.1	.7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	219	5
8-9	.0	1.6	1.2	4.4	3.6	1.5	.3	.1	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	68	6
10-11	.0	1.0	.9	1.6	1.5	.1	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	38	5
12-13	.0	.0	1.6	.6	.1	.3	.3	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	22	6
>13	.0	.0	.0	.6	.3	.0	.1	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	9	8
INDET	2.9	.9	3.2	.6	.3	.6	.0	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	60	3
TOTAL	41	101	293	190	76	25	13	2	3	3	0	0	0	0	0	0	0	0	0	687	4
PCT	6.0	14.7	33.9	27.7	11.1	3.6	1.9	.3	.4	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	

PERIOD: (PRIMARY) 1912-1978
(OVER-ALL) 1855-1978

MARCH

AREA 0031 MOLLEND
16.35 74.4W

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
N	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
E	.0	.0	.0	.0	.0	.0	.0	.0	1.0	.0	.0	.0	.0	.0	99.0
SE	.1	.1	.1	.0	.0	.0	.0	.9	.9	.1	1.1	.0	2.2	.0	95.9
S	.0	.4	.7	.0	.0	.0	.0	1.1	.2	.0	.8	.2	2.5	.0	95.4
SW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.7	.7	.0	98.6
W	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
NW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	50.0	.0	50.0
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	12.5	2.5	7.5	.0	77.5
TOT PCT	.1	.1	.3	.0	.0	.0	.0	.5	.3	.1	1.2	.1	2.3	.0	95.4
TOT OBS:	1337														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
00003	.0	.0	.6	.0	.0	.0	.0	.6	.9	.0	.3	.0	3.4	.0	94.8
06009	.3	.0	.6	.0	.0	.0	.0	.9	.0	.3	1.5	.0	1.2	.0	96.1
12015	.3	.6	.0	.0	.0	.0	.0	.9	.3	.0	2.3	.0	1.4	.0	95.1
18021	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.9	.6	3.2	.0	95.3
TOT PCT	.1	.1	.3	.0	.0	.0	.0	.6	.3	.1	1.3	.1	2.3	.0	95.3
TOT OBS:	1350														

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	48+					00	03	06	09	12	15	18	21
N	.4	.3	.0	.0	.0	.0		.7	3.6	.8	.0	.7	1.9	.6	.0	.3	.4	
NE	.2	.9	.1	.0	.0	.0		1.3	5.9	.5	.0	1.7	2.6	1.7	4.5	.2	1.5	
E	2.0	7.5	1.5	.0	.0	.0		11.1	6.7	8.3	8.3	11.8	18.9	13.1	10.2	8.2	7.5	
SE	4.1	30.8	17.2	.2	.0	.0		52.3	9.2	53.8	55.2	51.5	44.8	53.4	45.5	53.5	57.0	
S	3.6	16.8	5.6	.1	.0	.0		26.1	8.0	29.9	28.1	25.4	17.4	24.0	35.2	30.3	24.5	
SW	.7	1.6	.2	.0	.0	.0		2.5	5.8	2.4	.0	2.3	2.3	1.2	2.3	3.4	4.2	
W	.3	.3	.0	.0	.0	.0		.7	4.5	.6	.0	.8	.3	.4	2.3	.7	1.6	
NW	.2	.2	.0	.0	.0	.0		.3	4.4	.6	.0	.5	.8	.1	.0	.2	.0	
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	5.0							5.0	.0	3.2	8.3	5.4	11.1	5.5	.0	3.1	3.3	
TOT OBS	540	1912	803	11	0	0	3266		7.9	653	24	628	389	615	44	639	274	
TOT PCT	16.5	58.5	24.6	.3	.0	.0		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)				41+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)			
	0-6	7-16	17-27	28-40					00	06	12	18
N	.7	.1	.0	.0	.0	.0	.7	3.6	.7	1.2	.6	.3
NE	1.0	.2	.0	.0	.0	.0	1.3	5.9	.5	2.0	1.9	.6
E	6.4	4.6	.1	.0	.0		11.1	6.7	8.3	14.5	12.9	8.0
SE	17.7	31.0	3.6	.0	.0		52.3	9.2	53.8	48.9	52.8	54.6
S	10.8	14.4	.9	.0	.0		26.1	8.0	29.8	22.3	24.7	28.6
SW	1.7	.8	.0	.0	.0		2.5	5.8	2.3	2.3	1.3	3.7
W	.5	.2	.0	.0	.0		.7	4.5	.6	.6	.5	1.0
NW	.3	.1	.0	.0	.0		.3	4.4	.6	.6	.1	.1
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0
CALM	5.0						5.0	.0	3.4	7.6	5.2	3.2
TOT OBS	1438	1677	150	1	0	3266		7.9	677	1017	659	913
TOT PCT	44.0	51.3	4.6	.0	.0		100.0		100.0	100.0	100.0	100.0

PERIOD: (PRIMARY) 1912-1978
(OVER-ALL) 1855-1978

MARCH

AREA 0051 MOLLEND
16.35 74.4W

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	WIND SPEED (KNOTS)						MEAN	PCT FREQ	TOTAL OBS
		1-3	4-10	11-21	22-33	34-47	48+			
00003	3.4	12.1	59.2	24.7	.6	.0	.0	8.2	100.0	677
06009	7.6	13.2	57.8	21.0	.4	.0	.0	7.3	100.0	1017
12015	5.2	11.2	58.3	25.0	.3	.0	.0	8.1	100.0	659
18021	3.2	9.5	59.0	28.1	.1	.0	.0	8.3	100.0	913
TOT	163	377	1912	803	11	0	0	7.9		3266
PCT	5.0	11.5	58.5	24.6	.3	.0	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBSCO	TOTAL OBS	MEAN CLOUD COVER
N	.1	.0	.1	.0		3.5
NE	.2	.1	.2	.2		4.2
E	1.6	1.4	2.1	1.0		4.4
SE	15.1	10.8	17.6	9.7		4.5
S	10.8	6.4	10.9	5.9		4.3
SW	.9	.3	.5	.6		4.2
W	.3	.1	.0	.1		3.0
NW	.0	.0	.2	.0		7.0
VAR	.0	.0	.0	.4		3.0
CALM	.8	.8	.7	.4		3.9
TOT OBS	320	213	345	192	1070	4.4
TOT PCT	29.9	19.9	32.2	17.9	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8)
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

	000	150	300	600	1000	2000	3500	5000	6500	8000+	NH <5/8 ANY HGT	TOTAL OBS
	149	299	599	999	1999	3499	4999	6499	7999			
N	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	
NE	.0	.0	.0	.1	.0	.1	.0	.0	.0	.0	.0	.4
E	.0	.0	.1	.1	.7	.8	.1	.1	.0	.1	.4	
SE	.4	.0	.6	3.7	6.9	9.0	1.9	.6	.2	.7	33.3	
S	.1	.0	.6	1.4	4.7	3.1	.9	.3	.1	.2	22.5	
SW	.0	.0	.0	.1	.3	.1	.2	.0	.0	.1	1.5	
W	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.5	
NW	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.1	
TOT OBS	6	0	13	58	142	99	34	11	3	12	692	1070
TOT PCT	.6	.0	1.2	5.4	13.3	9.3	3.2	1.0	.3	1.1	64.7	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE
OF CEILING HEIGHT (NH >4/8) AND VSBY (NH)

CEILING (FEET)	VSBY (NH)							
	>10	>5	>2	>1	>1/2	>1/4	>50YD	>0
>OR								
>6500	.9	1.5	1.5	1.5	1.5	1.5	1.5	1.5
>5000	1.7	2.4	2.4	2.4	2.4	2.4	2.4	2.4
>3500	4.5	5.6	5.6	5.6	5.6	5.6	5.6	5.6
>2000	12.5	14.9	14.9	14.9	14.9	14.9	14.9	14.9
>1000	24.3	27.8	27.9	27.9	27.9	28.0	28.1	28.1
>600	28.7	33.2	33.3	33.3	33.3	33.4	33.5	33.5
>300	29.6	34.2	34.4	34.4	34.4	34.5	34.6	34.6
>150	29.6	34.2	34.4	34.4	34.4	34.5	34.6	34.6
>0	29.8	34.5	34.8	34.8	34.8	35.0	35.1	35.2
TOTAL	322	373	376	376	376	378	379	380

TOTAL NUMBER OF OBS: 1081

PCT FREQ NH <5/8: 64.8

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	OBSCO	TOTAL OBS
19.2	13.7	13.8	10.5	7.2	5.8	5.9	9.9	13.8	.2	1159

PERIOD: (PRIMARY) 1912-1978
(OVER-ALL) 1855-1978

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TABLE 8

		PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF PRECIPITATION WITH VARYING VALUES OF VISIBILITY											TOTAL OBS
VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	
<1/2	PCP	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1	
	NO PCP	.0	.0	.0	.1	.1	.0	.0	.0	.0	.2	.4	
	TOT %	.0	.0	.0	.1	.1	.0	.0	.0	.0	.2	.4	
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.2	.1	.0	.0	.0	.0	.0	.3	
	TOT %	.0	.0	.0	.2	.1	.0	.0	.0	.0	.0	.3	
1<2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1	.2	
	TOT %	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1	.2	
2<5	PCP	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.1	
	NO PCP	.0	.0	.1	.1	.1	*	.0	.0	.0	.1	.4	
	TOT %	.0	.0	.1	.1	.1	*	.0	.0	.0	.1	.5	
5<10	PCP	.0	.0	.0	.1	.1	.0	.0	.0	.0	.0	.2	
	NO PCP	.1	.2	1.6	7.6	4.7	.2	.1	.1	.0	1.0	15.7	
	TOT %	.1	.2	1.6	7.7	4.9	.2	.1	.1	.0	1.0	15.9	
10+	PCP	.0	.0	.0	*	.1	.0	.0	.0	.0	.0	.1	
	NO PCP	.1	.5	5.6	43.6	28.4	2.4	.4	.0	.0	1.5	82.5	
	TOT %	.1	.5	5.6	43.7	28.5	2.4	.4	.0	.0	1.5	82.6	
TOT OBS													1335
TOT PCT		.1	.7	7.3	51.9	33.8	2.6	.4	.1	.0	3.0	100.0	

TABLE 9

		PERCENT FREQ OF WIND DIRECTION VS WIND SPEED WITH VARYING VALUES OF VISIBILITY											TOTAL OBS
VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	
<1/2	0-3	.0	.0	.0	.1	.1	.0	.0	.0	.0	.2	.3	
	4-10	.0	.0	.0	*	.1	.0	.0	.0	.0	.0	.2	
	11-21	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.1	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.1	.3	.0	.0	.0	.0	.2	.6	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	*	.1	.0	.0	.0	.0	.0	.2	
	11-21	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.1	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.1	.1	.0	.0	.0	.0	.0	.3	
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1	
	4-10	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.1	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1	.2	
2<5	0-3	.0	.0	.1	*	.1	.0	.0	.0	.0	.2	.4	
	4-10	.0	.0	*	.3	.1	.0	.0	.0	.0	.0	.4	
	11-21	.0	.0	.0	.2	.1	*	.0	.0	.0	.0	.3	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.1	.5	.3	*	.0	.0	.0	.2	1.1	
5<10	0-3	.1	.0	.4	.7	.4	.1	.0	.0	.0	1.3	3.0	
	4-10	.0	.1	.8	4.8	2.1	*	.1	.0	.0	.0	8.0	
	11-21	.0	.0	.3	2.8	1.6	.1	.0	.1	.0	.0	4.8	
	22+	.0	.1	.0	.1	.1	.0	.0	.0	.0	.0	.2	
	TOT %	.1	.2	1.6	8.4	4.2	.2	*	.1	.0	1.3	16.1	
10+	0-3	.1	.2	.6	2.4	2.7	.5	.1	.1	.0	2.3	9.1	
	4-10	.1	.5	4.0	24.2	17.1	1.4	.3	.0	.0	.0	47.7	
	11-21	.0	.0	.9	16.6	7.0	.3	*	.0	.0	.0	24.8	
	22+	.0	.0	.0	.1	.1	.0	.0	.0	.0	.0	.2	
	TOT %	.2	.7	5.5	43.3	26.9	2.2	.3	.1	.0	2.3	81.8	
TOT OBS													1745
TOT PCT		.3	.9	7.3	52.6	31.8	2.3	.3	.2	.0	4.1	100.0	

PERIOD: (PRIMARY) 1912-1978
(OVER-ALL) 1855-1978

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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET/NH >4/8) AND
OCCURRENCE OF NH <5/8 BY HOUR

HOURL (GMT)	000 149	150 299	300 399	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00003	.0	.0	1.1	6.4	11.4	8.9	2.1	1.1	1.1	.7	32.9	67.1	280
06009	.8	.0	2.3	3.9	13.3	10.2	3.1	.8	.0	.8	35.2	64.8	256
12015	1.3	.0	1.0	7.7	14.3	9.3	5.0	1.0	.0	.7	40.3	59.7	300
18021	.0	.0	.3	2.4	11.6	7.5	1.7	1.0	.0	2.4	27.0	73.0	293
TOT PCT	6 .5	0 .0	13 1.2	58 5.1	143 12.7	101 8.9	34 3.0	11 1.0	3 .3	13 1.2	382 32.8	747 66.2	1129 100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOURL (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.5	.0	.0	.5	18.0	81.0	400
06009	.8	.2	.2	1.0	17.3	80.5	486
12015	1.2	.5	.2	1.2	14.9	82.0	416
18021	.2	.4	.2	1.5	14.4	83.2	459
TOT PCT	12 .7	5 .3	3 .2	19 1.1	284 16.1	1438 81.7	1761 100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR
CEILING HGT (FEET/NH >4/8) BY HOUR

HOURL (GMT)	<150 450YD	<600 CL	<1000 CL	1000+ AND 5+	NH <5/8 AND 5+	TOTAL OBS
00003	.0	1.1	8.0	26.1	65.9	264
06009	.8	3.3	7.7	29.3	63.0	246
12015	1.7	3.1	11.6	30.7	57.7	293
18021	.0	.7	4.0	25.2	70.9	278
TOT PCT	7 .6	22 2.0	85 7.9	301 27.8	695 64.3	1081 100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
85/89	.0	.0	.1	.0	.0	.0	.0	.0	1	.1
80/84	.0	.0	.0	.4	.7	.9	.3	.1	29	2.5
75/79	.0	.0	.0	.6	3.5	9.8	5.8	1.4	245	21.1
70/74	.0	.0	.0	.5	6.4	14.3	19.4	12.0	612	52.7
65/69	.0	.0	.0	.0	.3	1.5	9.5	9.8	246	21.2
60/64	.0	.0	.0	.0	.0	.0	.8	1.7	29	2.5
TOTAL	0	0	1	14	127	309	416	291	1162	100.0
PCT	.0	.0	.1	1.5	10.9	26.6	35.8	25.0		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
85/89	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0
80/84	.0	.0	.1	1.4	.9	.1	.0	.0	.0	.0
75/79	.0	.3	1.6	11.1	7.1	.7	.0	.0	.0	.3
70/74	.1	.2	3.3	29.0	17.2	.9	.3	.1	.0	1.6
65/69	.0	.1	1.9	10.1	6.9	.5	.2	.0	.0	1.5
60/64	.0	.0	.3	1.2	.9	.1	.0	.0	.0	.0
TOTAL	.1	.6	7.3	52.7	33.0	2.3	.5	.1	.0	3.4

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOURL (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	80	78	76	72	65	63	62	71.2	653
06009	79	76	75	70	64	63	59	69.9	1004
12015	80	78	76	71	65	63	62	70.8	632
18021	88	84	81	74	67	64	64	73.8	784
TOT	88	81	78	72	65	63	59	71.3	3073

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOURL (GMT)	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	1.1	7.1	27.1	36.1	28.6	83	280		
06009	.0	1.0	9.5	19.0	37.3	33.2	84	295		
12015	.0	.3	9.3	22.8	40.4	27.2	83	302		
18021	.0	4.0	16.9	37.4	30.1	11.6	77	302		
TOT	0	19	127	314	424	295	81	1179		

PERIOD: (PRIMARY) 1912-1970
(OVER-ALL) 1855-1978

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TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	61 64	65 68	69 72	73 76	77 80	81 84	85 88	TOT	W FOG	WD FOG
14/16	.0	.0	.0	.2	.0	.0	.0	2	.0	.2
11/13	.0	.2	.2	.5	.3	.3	.1	22	.0	1.8
9/10	.0	.2	.9	.8	.3	.2	.0	31	.1	2.4
7/8	.2	1.0	1.4	.9	.8	.5	.0	58	.1	4.6
6	.2	1.1	.9	.9	.5	.1	.1	46	.1	3.6
5	.2	1.3	1.6	1.5	.9	.1	.0	69	.1	5.5
4	.3	1.1	1.5	1.1	.8	.0	.0	61	.1	4.9
3	.6	1.5	1.9	2.0	1.0	.3	.0	90	.1	7.2
2	.3	3.2	2.8	2.6	.7	.0	.0	120	.2	9.5
1	.1	2.2	3.2	4.1	1.1	.0	.0	132	.2	10.5
0	.1	1.9	5.8	7.2	.8	.0	.0	196	.2	15.7
-1	.1	.6	3.8	6.6	.3	.0	.0	141	.0	11.4
-2	.1	.7	3.8	4.0	.2	.0	.0	109	.1	8.7
-3	.1	.3	2.3	2.7	.1	.0	.0	67	.0	5.4
-4	.2	.0	2.3	1.7	.0	.0	.0	52	.0	4.2
-5	.1	.2	.7	.4	.0	.0	.0	17	.0	1.4
-6	.0	.1	.7	.2	.0	.0	.0	13	.0	1.1
-7/-8	.0	.1	.5	.1	.0	.0	.0	8	.0	.6
-9/-10	.0	.0	.1	.0	.0	.0	.0	1	.0	.1
TOTAL	30	195	427	465	97	19	2	1235	1.1	98.9
PCT	2.4	15.8	34.6	37.7	7.9	1.5	.2	100.0	1.1	98.9

PERIOD: (OVER-ALL) 1963-1978

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.2
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.2	.0	.0	.0	.0	.0	.2	.0	.1	.0	.2	.0	.0	.3

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.5	.7	.1	.0	.0	.0	1.3	1.9	3.3	1.3	.0	.0	.0	6.7
1-2	.1	2.1	.5	.0	.0	.0	2.7	.2	15.0	7.4	.0	.0	.0	22.6
3-4	.0	1.4	.9	.0	.0	.0	2.3	.6	6.2	9.1	.0	.0	.0	15.9
5-6	.0	.0	.3	.0	.0	.0	.3	.0	1.3	7.3	.0	.0	.0	8.7
7	.0	.0	.1	.0	.0	.0	.1	.0	.0	2.8	.0	.0	.0	2.9
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.6	4.2	1.9	.0	.0	.0	6.7	2.6	26.0	28.0	.0	.0	.0	56.7

PERIOD: (OVER-ALL) 1963-1978

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TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.4	2.0	.0	.0	.0	.0	2.3	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.2	11.0	3.0	.0	.0	.0	14.1	.2	.7	.4	.0	.0	.0	1.3	.0
3-4	.0	4.7	4.9	.2	.0	.0	10.5	.0	.0	.2	.0	.0	.0	.3	.0
5-6	.0	1.0	1.3	.1	.0	.0	2.5	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.1	.5	.0	.0	.0	.6	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.1	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.7	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.2	18.8	10.0	.3	.0	.0	30.3	.2	.6	.7	.0	.0	.0	1.7	.0

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.3	.0	.0	.0	.0	.3	.0	.2	.2	.0	.0	.0	.4	.0
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.3	.0	.0	.0	.0	.3	.0	.2	.2	.0	.0	.0	.4	96.5

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	6.2	6.2	1.4	.0	.0	.0	13.8	
1-2	1.3	29.2	11.4	.0	.0	.0	41.8	
3-4	1.3	12.3	15.0	.2	.0	.0	28.8	
5-6	.0	2.4	8.9	.4	.0	.0	11.6	
7	.0	.2	3.4	.0	.0	.0	3.6	
8-9	.0	.0	.2	.0	.0	.0	.2	
10-11	.0	.0	.2	.0	.0	.0	.2	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	8.7	50.2	40.6	.5	.0	.0	100.0	552

PERIOD: (OVER-ALL) 1949-1978

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	2.1	9.4	15.0	6.2	1.2	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	320
6-7	.0	1.4	8.5	11.2	5.2	1.0	1.6	1.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	280
8-9	.1	1.0	2.7	4.5	4.3	2.2	.4	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	144
10-11	.0	.6	2.0	2.3	1.2	1.0	.2	.4	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	74
12-13	.0	.0	1.5	1.0	.9	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	32
>13	.0	.0	.0	.9	.3	.4	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	16
INDET	2.6	1.2	1.6	1.6	.7	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	75
TOTAL	45	127	294	259	129	47	23	16	1	0	0	0	0	0	0	0	0	0	0	0	941
PCT	4.8	13.5	31.2	27.5	13.7	5.0	2.4	1.7	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0

PERIOD: (PRIMARY) 1912-1977
(OVER-ALL) 1869-1977

APRIL

AREA 0031 MOLLEND
10.15 74.3W

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
N	.0	13.0	.0	.0	.0	.0	.0	13.0	.0	.0	.0	.0	.0	.0	87.0
NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
E	.0	.0	.9	.0	.0	.0	.0	.9	.0	.0	.0	.0	3.5	.0	95.6
SE	.2	.0	.0	.0	.0	.0	.0	.3	.3	.2	2.4	.0	3.9	.0	92.9
S	.0	.2	.0	.0	.0	.0	.0	.2	.3	.2	1.8	.3	4.7	.0	92.4
SW	.0	.0	3.0	.0	.0	.0	.0	3.0	.0	.0	.8	3.0	.0	.0	93.2
W	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	10.8	.0	.0	.0	89.2
NW	.0	3.4	.0	.0	.0	.0	.0	3.4	.0	.0	13.8	.0	.0	.0	82.8
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	9.8	7.3	.0	4.9	.0	78.0
TOT PCT	.1	.2	.2	.0	.0	.0	.0	.4	.3	.5	2.3	.2	3.9	.0	92.4
TOT OBS:	1141														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
00003	.3	.0	.6	.0	.0	.0	.0	1.0	.0	.3	2.2	.0	3.2	.0	93.3
06009	.0	.3	.0	.0	.0	.0	.0	.3	.3	1.3	.7	.0	2.3	.0	95.0
12015	.0	.0	.0	.0	.0	.0	.0	.0	.7	.7	3.7	.7	3.7	.0	90.3
18021	.0	.4	.0	.0	.0	.0	.0	.4	.0	.0	2.9	.0	6.5	.0	90.3
TOT PCT	.1	.2	.2	.0	.0	.0	.0	.4	.3	.6	2.3	.2	3.9	.0	92.3
TOT OBS:	1158														

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	48+	00				03	06	09	12	15	18	21	
N	.4	.6	.0	.1	.0	.0		1.0	5.4		.8	.0	1.1	2.3	1.3	.0	.5	.4
NE	.5	1.1	.1	.0	.0	.0		1.7	5.3		1.4	.0	1.7	4.4	1.9	4.2	.8	.4
E	1.7	7.7	1.7	.3	.0	.0		11.3	7.4		7.1	5.7	13.2	20.4	12.2	11.8	8.9	8.7
SE	4.0	29.3	15.5	.4	.0	.0		49.2	9.2		49.0	48.6	49.8	39.4	53.2	54.9	52.3	46.7
S	4.0	14.8	9.9	.2	.0	.0		24.9	8.0		29.5	36.4	20.6	17.1	22.8	15.3	29.5	28.2
SW	1.0	2.3	.3	.0	.0	.0		3.6	5.6		3.3	6.4	3.5	3.4	3.0	5.6	4.1	4.3
W	.2	.7	.0	.0	.0	.0		.8	5.1		.4	2.9	.7	.7	.3	.0	1.5	1.6
NW	.2	.4	.0	.0	.0	.0		.6	5.1		.5	.0	.5	1.2	.4	.0	.4	.8
VAR	.0	.0	.0	.0	.0	.0		.0	.0		.0	.0	.0	.0	.0	.0	.0	.0
CALM	6.8							6.8	.0		7.9	.0	8.9	11.1	4.9	8.3	1.9	8.8
TOT OBS	560	1701	701	27	0	0	2989		7.8		623	35	606	361	508	36	571	249
TOT PCT	18.7	56.9	23.5	.9	.0	.0		100.0			100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)					TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)				
	0-6	7-16	17-27	28-40	41+				00 03	06 09	12 15	18 21	
N	.9	.1	.0	.1	.0		1.0	5.4	.7	1.6	1.2	.5	
NE	1.2	.5	.0	.0	.0		1.7	5.3	1.4	2.7	2.0	.7	
E	5.9	4.9	.5	.0	.0		11.3	7.4	7.0	15.9	12.1	8.9	
SE	15.9	30.0	3.3	.1	.0		49.2	9.2	46.0	45.9	53.3	50.6	
S	11.3	12.4	1.2	.0	.0		24.9	8.0	29.9	19.3	22.3	29.1	
SW	2.4	1.1	.0	.0	.0		3.6	5.8	3.5	3.4	3.2	4.1	
W	.7	.1	.0	.0	.0		.8	5.1	.4	.7	.3	1.6	
NW	.5	.1	.0	.0	.0		.6	5.1	.5	.8	.4	.5	
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	
CALM	6.8						6.8	.0	7.4	9.7	5.1	4.0	
TOT OBS	1365	1469	150	5	0	2989		7.8	658	967	544	820	
TOT PCT	45.7	49.1	5.0	.2	.0		100.0		100.0	100.0	100.0	100.0	

PERIOD: (PRIMARY) 1912-1977
(OVER-ALL) 1869-1977

APRIL

AREA 0031 MOLLEND
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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)			48+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47				
00003	7.4	12.0	56.1	23.9	.6	.0	.0	7.7	100.0	658
06009	9.7	12.1	56.4	19.9	.9	.0	.0	7.2	100.0	967
12015	5.1	11.2	58.1	24.6	.9	.0	.0	8.2	100.0	544
18021	4.0	10.9	57.4	26.6	1.1	.0	.0	8.3	100.0	820
TOT	20.4	35.6	170.1	70.1	2.7	0	0	7.8		2989
PCT	6.8	11.9	56.9	23.5	.9	.0	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	.1	.0	.1	.1		4.5
NE	.0	.3	.0	.1		5.0
E	2.5	1.7	1.6	1.5		3.9
SE	20.3	7.2	14.2	13.5		4.1
S	12.4	4.2	5.8	8.4		5.1
SW	.6	.4	.8	.7		5.4
W	.1	.1	.6	.0		7.0
NW	.0	.0	.2	.0		.0
VAR	.0	.0	.0	.0		3.6
CALM	1.2	.5	.2	.7		4.2
TOT OBS	31.7	12.2	20.1	21.4	85.4	
TOT PCT	37.1	14.3	23.5	25.1	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT. NH >4/8)
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

000	150	300	600	1000	2000	3500	5000	6500	8000+	NH <5/8 ANY HGT	TOTAL
149	299	599	999	1999	3499	4999	6499	7999		OBS	
.0	.0	.0	.1	.1	.0	.0	.0	.0	.0	.1	
.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.3	
.0	.0	.0	.4	1.2	.6	.2	.0	.0	.0	.2	4.8
.0	.2	.7	3.9	8.3	5.2	2.5	1.0	.2	.9	32.2	
.0	.0	1.9	5.6	2.3	1.4	.3	.1	.3	18.8		
.0	.0	.0	1.1	.0	.0	.0	.0	.0	1.4		
.0	.0	.0	.3	.1	.0	.0	.0	.0	.1	.2	
.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
.1	.0	.0	.1	.5	.1	.0	.0	.0	.0	1.8	
1	2	6	58	144	71	36	11	3	13	309	854
.1	.2	.7	6.8	16.9	8.3	4.2	1.3	.4	1.5	59.6	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE
OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)							
	>10	>5	>2	>1	>1/2	>1/4	>50YD	>0
>3500	1.4	1.9	2.0	2.0	2.0	2.0	2.0	2.0
>5000	2.7	3.2	3.3	3.3	3.3	3.3	3.3	3.3
>7500	5.8	7.2	7.4	7.4	7.5	7.5	7.5	7.5
>10000	12.3	15.3	15.5	15.5	15.6	15.6	15.6	15.6
>15000	27.0	32.2	32.6	32.6	32.7	32.7	32.7	32.7
>20000	32.1	38.6	39.1	39.3	39.4	39.4	39.4	39.4
>25000	32.4	39.3	39.8	40.0	40.1	40.1	40.1	40.1
>30000	32.7	39.6	40.0	40.3	40.4	40.4	40.4	40.4
>35000	32.7	39.7	40.1	40.4	40.5	40.5	40.5	40.5
TOTAL	280	340	344	346	347	347	347	347

TOTAL NUMBER OF OBS 857

PCT FREQ NH <5/8 59.5

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	OBSCD	TOTAL OBS
25.0	12.1	9.2	6.8	5.5	3.9	5.7	10.0	21.6	.1	923

PERIOD: (PRIMARY) 1912-1977
(OVER-ALL) 1899-1977

APRIL

TABLE 8

AREA 0031 MOLLEND
16.15 74.3W

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VISBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.1	.0	.0	.0	.1	.0	.0	.0	.2
	TOT %	.0	.0	.0	.1	.0	.0	.0	.1	.0	.0	.0	.2
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.1	.1	.0	.0	.0	.0	.0	.0	.2
	TOT %	.0	.0	.0	.1	.1	.0	.0	.0	.0	.0	.0	.2
1<2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.3	.1	.0	.1	.0	.0	.1	.5	.5
	TOT %	.0	.0	.0	.3	.1	.0	.1	.0	.0	.1	.5	.5
2<5	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.1	1.3	.4	*	.0	.0	.0	.4	2.1	2.1
	TOT %	.0	.0	.1	1.3	.4	*	.0	.0	.0	.4	2.1	2.1
5<10	PCP	.1	.0	.1	.1	.0	.1	.0	*	.0	.0	.4	.4
	NO PCP	.1	.4	1.6	9.1	6.7	.7	.5	.4	.0	1.7	21.1	21.1
	TOT %	.2	.4	1.6	9.2	6.7	.8	.5	.4	.0	1.7	21.4	21.4
10+	PCP	.0	.0	.0	*	.1	.0	.0	.0	.0	.0	.1	.1
	NO PCP	.3	.3	3.8	41.3	23.6	2.1	.2	.1	.0	1.5	75.5	75.5
	TOT %	.3	.3	3.8	41.3	23.7	2.1	.2	.1	.0	1.5	75.6	75.6
TOT OBS													1138
TOT PCT		.5	.9	7.6	52.2	30.9	2.9	.8	.6	.0	3.6	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED
WITH VARYING VALUES OF VISIBILITY

VISBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.1	.1
	4-10	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.1	.1
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.1	.0	.0	.0	.1	.0	.0	.1	.1
1/2<1	0-3	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.1	.1
	4-10	.0	.0	.0	*	.1	*	.0	.0	.0	.0	.1	.1
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.1	.1	*	.0	.0	.0	.0	.2	.2
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1	.1
	4-10	.0	.0	.0	.1	.0	.0	.1	.0	.0	.0	.3	.3
	11-21	.0	.0	.0	.1	.1	.0	.0	.0	.0	.0	.1	.1
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.2	.1	.0	.1	.0	.0	.1	.5	.5
2<5	0-3	.0	.0	*	.1	.0	.0	.0	.0	.0	.3	.4	.4
	4-10	.0	.0	.1	.8	.2	.1	*	*	.0	.0	1.3	1.3
	11-21	.0	.0	.0	.4	.1	.0	.0	.0	.0	.0	.5	.5
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.1	1.3	.3	.1	*	*	.0	.3	2.2	2.2
5<10	0-3	.1	.1	.3	1.0	.5	.3	.0	.1	.0	1.9	4.3	4.3
	4-10	.1	.2	.7	4.4	3.0	.6	.4	.3	.0	.0	9.6	9.6
	11-21	.0	*	.4	2.8	1.9	.1	.0	.0	.0	.0	5.1	5.1
	22+	*	.0	.0	.0	.0	.0	.0	*	.0	.0	.1	.1
	TOT %	.2	.3	1.4	8.1	5.4	1.0	.4	.4	.0	1.9	19.0	19.0
10+	0-3	.2	.3	.4	2.6	2.2	.4	.1	*	.0	3.5	9.7	9.7
	4-10	.1	.2	4.7	22.0	14.2	2.2	.2	.1	.0	.0	43.9	43.9
	11-21	.0	.1	1.1	15.5	6.8	.4	.0	.0	.0	.0	23.9	23.9
	22+	*	.0	*	.1	.2	*	.0	*	.0	.0	.3	.3
	TOT %	.4	.6	6.3	40.2	23.4	3.1	.3	.1	.0	3.5	78.0	78.0
TOT OBS													1502
TOT PCT		.6	.9	7.8	50.0	29.3	4.2	.9	.6	.0	5.7	100.0	

APRIL

PERIOD: (PRIMARY) 1912-1977
(OVER-ALL) 1869-1977AREA 0091 MOLLENDO
16.15 74.3W

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NM >4/8) AND
OCCURRENCE OF NM <5/8 BY HOUR

HR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NM <5/8 ANY HGT	TOTAL OBS
00003	.4	.8	.8	6.7	16.7	6.3	3.3	1.3	.4	1.3	38.1	61.9	239
06009	.0	.0	1.0	8.4	18.3	7.9	5.0	1.0	.5	1.5	43.6	56.4	202
12015	.0	.0	.9	5.9	19.1	12.3	5.9	1.4	.5	1.4	47.3	52.7	220
18021	.0	.0	.0	5.2	11.8	5.7	2.2	1.3	.0	2.2	28.4	71.6	229
TOT	1	2	6	58	146	71	36	11	3	14	348	542	890
PCT	.1	.2	.7	6.5	16.4	8.0	4.0	1.2	.3	1.6	39.1	60.9	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.0	.0	.3	1.9	20.1	77.8	378
06009	.2	.0	.2	1.8	19.5	78.2	441
12015	.0	.0	.9	3.1	19.7	76.2	319
18021	.3	.8	.5	2.1	18.4	78.0	381
TOT	2	3	7	33	295	1179	1519
PCT	.1	.2	.5	2.2	19.4	77.6	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR
CEILING HGT (FEET, NM >4/8), BY HOUR

HR (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND 5+	NM <5/8 AND 5+	TOTAL OBS
00003	.4	2.2	12.2	30.6	57.2	229
06009	.0	1.0	11.8	34.9	53.3	195
12015	.0	.9	10.2	39.8	50.0	216
18021	.0	.5	9.2	24.0	66.8	217
TOT	1	10	93	276	488	857
PCT	.1	1.2	10.9	32.2	56.9	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
80/84	.0	.0	.0	.0	.3	.1	.1	.0	5	.5
75/79	.0	.0	.0	.8	2.0	2.4	.8	.2	64	6.2
70/74	.0	.0	.2	.7	5.3	15.2	13.9	3.7	403	39.0
65/69	.0	.0	.0	.2	1.9	8.4	18.4	18.4	468	45.3
60/64	.0	.0	.0	.0	.0	.4	2.4	5.7	93	9.0
TOTAL	0	0	2	17	99	274	373	268	1033	100.0
PCT	.0	.0	.2	1.6	9.6	26.5	36.1	25.9		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.0	.0	.2	.3	.0	.0	.0	.0	.0	.0
.0	.0	.4	3.7	1.9	.0	.1	.0	.0	.0
.1	.1	1.5	22.0	13.4	.6	.0	.2	.0	.4
.2	.6	4.5	22.1	12.0	1.0	.5	.6	.0	3.8
.0	.1	.8	5.2	2.3	.0	.1	.0	.0	.5
.3	.8	7.4	53.3	29.6	1.7	1.3	.9	.0	4.6

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	83	77	74	68	63	62	59	68.5	655
06009	81	74	72	67	63	60	58	67.1	973
12015	83	76	74	68	63	62	60	68.1	539
18021	84	81	78	71	64	62	58	70.9	708
TOT	84	79	75	68	63	61	58	68.6	2875

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HR (GMT)	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	.4	5.7	27.0	36.3	30.6	83	281		
06009	.0	1.1	0.4	21.9	41.1	29.4	83	265		
12015	.0	.4	9.1	22.8	36.2	31.5	84	234		
18021	.0	5.6	17.5	33.5	31.1	12.4	77	231		
TOT	0	19	100	276	381	275	82	1051		

PERIOD: (PRIMARY) 1912-1977
(OVER-ALL) 1809-1977

APRIL

TABLE 17

AREA 0031, MOLLENDU
16.15 74.3W

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	57 60	61 64	65 68	69 72	73 76	77 80	81 84	TOT	N FOG	WD FOG
14/16	.0	.0	.0	.0	.2	.2	.0	4	.1	.3
11/13	.0	.0	.1	.5	.8	.1	.0	15	.0	1.4
9/10	.0	.2	.1	1.0	.3	.3	.1	22	.2	1.9
7/8	.0	.0	1.2	1.2	.0	.1	.3	34	.1	3.2
6	.0	.1	2.0	1.0	.0	.2	.0	40	.2	3.7
5	.0	.7	2.1	2.0	.8	.4	.0	62	.2	5.8
4	.0	.8	1.9	1.5	1.0	.8	.0	62	.2	5.8
3	.0	.8	2.1	1.6	1.3	.3	.0	63	.0	6.1
2	.1	2.2	3.7	3.6	1.8	.7	.0	125	.5	11.6
1	.0	1.5	4.8	3.3	1.0	.4	.1	115	.2	10.9
0	.0	1.1	3.9	4.8	2.4	.4	.0	130	.2	12.4
-1	.0	.7	2.9	4.6	1.4	.1	.0	101	.1	9.7
-2	.0	.3	2.1	4.2	2.0	.3	.0	93	.0	9.0
-3	.0	.3	1.7	4.0	.8	.0	.0	70	.1	6.7
-4	.0	.5	1.2	2.5	.4	.0	.0	47	.0	4.5
-5	.0	.2	1.4	1.4	.2	.0	.0	33	.1	3.1
-6	.0	.0	.6	.3	.0	.0	.0	9	.0	.9
-7/-8	.0	.0	.3	.3	.0	.0	.0	8	.0	.8
-9/-10	.1	.1	.1	.0	.0	.0	.0	3	.0	.3
TOTAL	2	97	335	392	162	43	5	1036	2.1	1014
PCT	.2	9.4	32.3	37.6	15.6	4.2	.5	100.0	2.1	97.9

PERIOD: (OVER-ALL) 1963-1977

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	N						PCT	NE						PCT
	1-3	4-10	11-21	22-33	34-47	48+		1-3	4-10	11-21	22-33	34-47	48+	
<1	.0	.2	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.5
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.1
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.2	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.2	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.2	.0	.4	.0	.0	.6	.0	.2	.3	.0	.0	.0	.5

HGT	E						PCT	SE						PCT
	1-3	4-10	11-21	22-33	34-47	48+		1-3	4-10	11-21	22-33	34-47	48+	
<1	.0	.5	.0	.0	.0	.0	.5	.4	.0	.1	.0	.0	.0	.4
1-2	.0	3.7	.7	.0	.0	.0	3.9	.3	16.9	6.2	.0	.0	.0	23.6
3-4	.0	1.6	.4	.0	.0	.0	2.0	.2	8.7	13.8	.1	.0	.0	22.8
5-6	.0	.0	.4	.0	.0	.0	.0	.0	.5	7.6	.1	.0	.0	8.2
7	.0	.0	.0	.0	.0	.0	.0	.0	.1	2.1	.0	.0	.0	2.2
8-9	.0	.0	.2	.0	.0	.0	.2	.0	.0	.6	.0	.0	.0	.6
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	5.8	1.2	.0	.0	.0	7.0	1.1	26.2	30.5	.1	.0	.0	57.9

PERIOD: (OVER-ALL) 1963-1977

APRIL

AREA 0031 MOLLEND
16.15 74.3W

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.8	1.4	.2	.0	.0	.0	2.4	.0	.2	.0	.0	.0	.0	.2	
1-2	.2	11.2	3.6	.0	.0	.0	15.0	.0	.7	.1	.0	.0	.0	.7	
3-4	.0	4.1	3.1	.4	.0	.0	7.6	.0	.4	.0	.1	.0	.0	.5	
5-6	.0	.2	2.4	.2	.0	.0	2.8	.0	.0	.0	.0	.0	.0	.0	
7	.0	.0	.7	.0	.0	.0	.9	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.4	.0	.0	.0	.4	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	1.1	17.1	10.4	.5	.0	.0	29.1	.0	1.3	.1	.1	.0	.0	1.4	

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
3-4	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.1	
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.1	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.0	.2	.0	.0	.0	.0	.2	.0	.0	.0	.1	.0	.0	.1	96.9

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	4.3	2.4	.2	.0	.0	.0	6.9	
1-2	1.4	32.5	10.2	.0	.0	.0	44.1	
3-4	.2	14.9	17.3	.5	.0	.0	32.9	
5-6	.0	.7	10.4	.2	.0	.0	11.4	
7	.0	.2	2.8	.2	.0	.0	3.3	
8-9	.0	.0	1.2	.2	.0	.0	1.4	
10-11	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	5.9	50.7	42.2	1.2	.0	.0	100.0	422

PERIOD: (OVER-ALL) 1949-1977

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	1.5	11.1	17.6	9.7	1.5	.4	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	315	3
6-7	.0	1.3	8.4	12.9	4.3	1.6	1.2	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	225	5
8-9	.0	.4	2.0	4.3	2.8	.7	.3	.0	.3	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	81	6
10-11	.0	.4	1.1	1.3	1.9	1.3	.9	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	54	6
12-13	.0	.0	.4	.3	.4	.1	.3	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	13	7
>13	.0	.0	.0	.7	.4	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	9	6
INDET	1.2	2.5	1.9	1.1	.3	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	54	3
TOTAL	2.0	11.8	23.5	22.7	8.6	3.2	2.4	.5	.3	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	751	4
PCT	2.7	15.7	31.3	30.2	11.5	4.3	2.2	.7	.4	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	

PERIOD: (PRIMARY) 1913-1977
(OVER-ALL) 1870-1977

MAY

AREA 0031 MOLLENDO
16.28 74.2W

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
N	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	16.7	.0	83.3
NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	10.8	.0	21.6	.0	67.6
E	.0	.0	.8	.0	.0	.0	.0	.8	1.1	.0	.0	.0	3.0	.0	95.0
SE	.0	.2	.8	.0	.0	.0	.0	1.0	.7	.0	.4	.2	3.0	.0	94.7
S	.4	.0	.2	.0	.0	.0	.0	.6	.0	.0	1.4	.0	4.2	.0	93.9
SW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.9	.0	99.1
W	.0	.0	8.3	.0	.0	.0	.0	8.3	.0	.0	.0	.0	19.4	.0	72.2
NW	.0	.0	26.3	.0	.0	.0	.0	26.3	.0	.0	.0	.0	5.3	.0	68.4
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	2.4	.0	.0	.0	.0	2.4	.0	2.4	4.8	.0	14.3	.0	76.2
TOT PCT	.1	.1	.9	.0	.0	.0	.0	1.1	.5	.1	.9	.1	4.1	.0	93.3
TOT OBS:	1023														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
00003	.0	.0	.8	.0	.0	.0	.0	.8	.8	.0	.8	.0	2.0	.0	95.6
06009	.0	.0	1.2	.0	.0	.0	.0	1.2	.8	.4	.0	.0	3.5	.0	94.2
12015	.4	.4	1.5	.0	.0	.0	.0	2.3	.0	.0	1.5	.4	5.0	.0	90.8
18021	.0	.0	.0	.0	.0	.0	.0	.0	.4	.0	1.5	.0	6.3	.0	91.8
TOT PCT	.1	.1	.9	.0	.0	.0	.0	1.1	.5	.1	1.0	.1	4.2	.0	93.1
TOT OBS:	1036														

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	0-3	WIND SPEED (KNOTS)						48+	TOTAL QBS	PCT FREQ	MEAN SPD	HOUR (GMT)						
		4-10	11-21	22-33	34-47	00	03					06	09	12	15	18	21	
N	.8	.6	.0	.0	.0	.0		1.5	3.7		1.1	.0	1.2	3.8	1.6	5.6	.5	1.5
NE	.5	.9	.2	.0	.0	.0		1.6	5.4		1.5	7.1	1.3	2.1	2.2	.0	1.1	1.7
E	1.8	7.7	2.0	.0	.0	.0		11.5	7.4		6.9	7.1	13.0	19.8	14.8	8.3	8.9	6.5
SE	4.1	30.4	16.1	1.3	.1	.0		52.0	9.5		52.2	51.8	49.2	45.6	55.3	75.0	55.5	49.8
S	2.9	12.2	9.0	.1	.0	.0		20.3	8.1		24.5	25.0	20.4	11.2	17.2	11.1	23.4	23.7
SW	1.1	2.2	.2	.0	.0	.0		3.4	5.6		3.9	8.9	3.7	3.5	2.3	.0	3.0	5.2
W	.5	.7	.0	.0	.0	.0		1.2	4.1		1.4	.0	.9	1.0	1.0	.0	1.5	1.8
NW	.2	.7	.0	.0	.0	.0		.9	4.8		.6	.0	1.3	1.9	.6	.0	.2	1.2
VAR	.0	.0	.0	.0	.0	.0		.0	.0		.0	.0	.0	.0	.0	.0	.0	.0
CALM	7.6							7.6	.0		7.9	.0	9.0	11.2	5.1	.0	5.9	8.5
TOT OBS	546	1547	656	40	3	0	2792		7.9		554	14	554	331	532	18	555	234
TOT PCT	19.6	55.4	23.5	1.4	.1	.0		100.0			100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)				
	0-6	7-16	17-27	28-40	41+						00	06	12	18	21
N	1.3	.1	.0	.0	.0			1.5	3.7		1.1	2.2	1.7	.8	
NE	1.2	.4	.0	.0	.0			1.6	5.4		1.6	1.6	2.1	1.3	
E	6.1	4.7	.7	.0	.0			11.5	7.4		7.0	15.6	14.5	8.2	
SE	17.1	29.5	5.3	.1	.0			52.0	9.5		52.2	47.9	55.9	53.8	
S	9.6	9.7	.9	.0	.0			20.3	8.1		24.5	16.9	17.0	23.5	
SW	2.5	.7	.2	.0	.0			3.4	5.6		4.0	3.6	2.2	3.7	
W	1.1	.0	.0	.0	.0			1.2	4.1		1.3	1.0	1.0	1.6	
NW	.7	.1	.0	.0	.0			.9	4.8		.6	1.5	.6	.5	
VAR	.0	.0	.0	.0	.0			.0	.0		.0	.0	.0	.0	
CALM	7.6							7.6	.0		7.7	9.8	4.9	6.7	
TOT OBS	1322	1267	199	3	1	2792			7.9		558	885	550	789	
TOT PCT	47.3	45.4	7.1	.1	.0			100.0			100.0	100.0	100.0	100.0	

PERIOD: (PRIMARY) 1913-1977
(OVER-ALL) 1870-1977

MAY

AREA 0031 MOLLEND
16.25 74.2H

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)				48+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47					
0000Z	7.7	11.4	54.8	24.5	1.6	.0	.0	.0	7.9	100.0	568
0600Z	9.8	13.1	56.6	19.4	.9	.1	.0	.0	7.2	100.0	885
1200Z	4.9	12.9	53.5	26.7	2.0	.0	.0	.0	8.4	100.0	550
1800Z	6.7	10.5	55.9	25.1	1.5	.3	.0	.0	8.2	100.0	789
TOT	211	335	1547	656	40	.3	.0	.0	7.9		2792
PCT	7.6	12.0	53.4	23.5	1.4	.1	.0		100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & Obscd	TOTAL OBS	MEAN CLOUD COVER
N	.0	.1	.2	.1		5.7
NE	.1	.*	.2	.6		6.5
E	1.3	.8	2.2	4.8		6.1
SE	11.8	3.9	11.1	24.8		5.8
S	7.2	1.9	5.9	11.7		5.2
SW	.9	.2	.3	1.3		5.0
W	.0	.1	.2	.5		7.1
NW	.0	.0	.0	.2		8.0
VAR	.0	.0	.0	.0		.0
CALM	1.2	.1	.2	2.0		5.0
TOT OBS	183	57	165	405	810	5.6
TOT PCT	22.6	7.0	20.4	50.0	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8)
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

000	150	300	600	1000	2000	3500	5000	6500	8000+	NH <5/8 ANY HGT	TOTAL OBS
149	299	599	999	1999	3499	4999	6499	7999			
.0	.0	.0	.1	.0	.1	.0	.0	.0	.0	.2	
.0	.0	.0	.6	.0	.1	.0	.0	.0	.0	.2	
.1	.1	.0	1.2	3.4	.7	.4	.1	.1	.4	2.7	
.2	.9	.4	7.9	18.3	4.4	3.4	.6	.2	.1	19.2	
.0	.1	.4	4.1	7.2	2.3	.7	.2	.0	.4	11.3	
.0	.0	.0	.1	.7	.4	.3	.1	.0	.0	1.1	
.0	.1	.0	.0	.1	.3	.1	.0	.0	.0	.2	
.0	.0	.0	.0	.1	.1	.0	.0	.0	.0	.0	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
.0	.0	.1	.2	.9	.7	.1	.1	.0	.0	1.4	
.2	10	7	116	249	74	40	9	2	8	293	810
.2	1.2	.9	14.3	30.7	9.1	4.9	1.1	.2	1.0	36.2	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE
OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)							
	* OR >10	* OR >5	* OR >2	* OR >1	* OR >1/2	* OR >1/4	* OR >50YD	* OR >0
* OR >6500	.7	1.1	1.2	1.2	1.2	1.2	1.2	1.2
* OR >5000	1.8	2.2	2.3	2.3	2.3	2.3	2.3	2.3
* OR >3500	6.4	7.1	7.2	7.2	7.2	7.2	7.2	7.2
* OR >2000	14.9	16.5	16.6	16.6	16.6	16.6	16.6	16.6
* OR >1000	39.4	46.4	47.3	47.3	47.3	47.3	47.3	47.3
* OR >900	50.2	60.3	61.7	61.7	61.7	61.7	61.7	61.7
* OR >800	50.6	60.8	62.5	62.5	62.5	62.5	62.5	62.5
* OR >150	51.6	61.9	63.8	63.8	63.8	63.8	63.8	63.8
* OR >0	51.7	62.0	64.0	64.0	64.0	64.0	64.0	64.0
TOTAL	421	505	521	521	521	521	521	521

TOTAL NUMBER OF OBS: 814

PCT FREQ NH <5/8: 36.0

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	OBSCD	TOTAL OBS
17.6	5.7	3.9	4.5	5.0	3.4	5.4	10.4	44.1	.0	888

PERIOD: (PRIMARY) 1913-1977
(OVER-ALL) 1870-1977

MAY

AREA 0081 MOLLEND
16.25 74.2W

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1<2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2<5	PCP	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1	.2	.2
	NO PCP	.1	.0	.1	1.1	.7	.0	.1	.0	.3	.3	2.4	2.4
	TOT %	.1	.0	.1	1.2	.7	.0	.1	.0	.4	.4	2.5	2.5
5<10	PCP	.0	.0	.1	.3	.1	.0	.1	.0	.0	.0	.6	.6
	NO PCP	.3	.3	2.2	9.5	4.3	.5	.1	.3	.0	1.6	19.1	19.1
	TOT %	.3	.3	2.3	9.7	4.5	.5	.1	.4	.0	1.6	19.7	19.7
10+	PCP	.0	.0	.0	.2	.0	.0	.1	.0	.0	.0	.3	.3
	NO PCP	.2	.6	6.5	44.0	21.3	2.2	.5	.0	.0	2.2	77.5	77.5
	TOT %	.2	.6	6.5	44.1	21.3	2.2	.6	.1	.0	2.2	77.8	77.8
TOT OBS													1021
TOT PCT		.6	.9	8.9	55.1	20.4	2.7	.8	.5	.0	4.1	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2<5	0-3	.1	.0	.0	.2	.0	.0	.1	.0	.0	.3	.6	.6
	4-10	.0	.0	.2	.7	.4	.0	.0	.0	.0	.0	1.3	1.3
	11-21	.0	.0	.0	.3	.1	.0	.0	.0	.0	.0	.4	.4
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.1	.0	.2	1.1	.5	.0	.1	.0	.0	.3	2.3	2.3
5<10	0-3	.2	.2	.2	.4	.5	.3	.0	.2	.0	1.4	3.5	3.5
	4-10	.8	.1	1.6	3.6	2.3	.2	.1	.2	.0	.0	10.0	10.0
	11-21	.0	.0	.4	2.6	.8	.0	.0	.0	.0	.0	3.8	3.8
	22+	.0	.0	.0	.2	.1	.0	.0	.0	.0	.0	.3	.3
	TOT %	.3	.3	2.1	6.9	3.6	.5	.1	.4	.0	1.4	17.6	17.6
10+	0-3	.0	.2	.5	2.2	2.0	.8	.3	.0	.0	4.4	10.4	10.4
	4-10	.2	.5	4.3	23.3	12.0	1.7	.3	.1	.0	.0	42.5	42.5
	11-21	.0	.1	1.5	17.0	6.5	.3	.0	.0	.0	.0	25.4	25.4
	22+	.0	.0	.0	1.7	.2	.1	.0	.0	.0	.0	2.0	2.0
	TOT %	.2	.8	6.3	44.1	20.6	2.8	.6	.1	.0	4.4	80.2	80.2
TOT OBS													1333
TOT PCT		.5	1.1	8.7	54.1	24.9	3.3	.7	.5	.0	6.2	100.0	

PERIOD: (PRIMARY) 1913-1977
(OVER-ALL) 1870-1977

MAY

AREA 0031 HOLLEND
16.25 74.2W

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET+NM >4/8) AND
OCCURRENCE OF NM <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	200 599	250 999	300 1999	350 3499	400 4999	450 6499	500 7999	5500+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00003	.0	.9	.9	10.8	27.4	9.0	2.8	.0	.0	.0	51.9	48.1	212
06009	.0	1.0	.5	17.7	27.6	5.7	3.6	.5	.0	2.1	58.9	41.1	192
12015	.5	1.4	.9	19.5	35.3	12.7	5.9	1.8	.9	.5	79.2	20.8	221
18021	.4	1.3	.9	7.5	28.3	8.4	6.2	1.8	.0	1.3	56.2	43.8	226
TOT	2	10	7	117	253	77	40	9	2	8	525	326	851
PCT	.2	1.2	.8	13.7	29.7	9.0	4.7	1.1	.2	.9	61.7	38.3	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.0	.0	.0	1.0	17.0	82.0	305
06009	.0	.0	.0	1.6	18.6	79.8	377
12015	.0	.0	.0	3.2	21.4	75.4	309
18021	.0	.0	.0	3.4	15.2	81.4	355
TOT	0	0	0	31	242	1073	1346
PCT	.0	.0	.0	2.3	18.0	79.7	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR
CEILING HGT (FEET+NM >4/8) BY HOUR

HOUR (GMT)	<150 <500	<600 <1	<1000 <5	1000+ AND5+	NH <5/8 AND 5+	TOTAL OBS
00003	.0	2.0	14.0	40.5	45.5	200
06009	.0	1.6	21.7	40.8	37.5	184
12015	.5	2.8	24.8	57.9	17.3	214
18021	.5	2.8	14.4	45.4	40.3	216
TOT	2	19	152	378	284	814
PCT	.2	2.3	18.7	46.4	34.9	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
73/79	.0	.0	.0	.1	.8	.3	.0	.0	11	1.2
70/74	.0	.0	.0	.2	4.7	4.9	3.6	.6	125	14.2
65/69	.0	.0	.0	.1	5.6	20.2	20.1	7.9	475	53.9
60/64	.0	.0	.0	.0	1.0	5.0	14.6	9.5	266	30.2
55/59	.0	.0	.0	.0	.0	.0	.1	.3	4	.5
TOTAL	0	0	0	6	106	268	335	162	881	100.0
PCT	.0	.0	.0	.7	12.0	30.4	38.5	18.4		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
73/79	.0	.0	.0	.3	1.0	.0	.0	.0	.0	.0
70/74	.2	.1	.7	8.7	3.5	.5	.2	.0	.0	.2
65/69	.2	.5	4.7	28.6	15.9	1.5	.3	.1	.0	2.0
60/64	.1	.4	2.9	17.5	6.4	.4	.4	.4	.0	1.8
55/59	.0	.0	.1	.4	.0	.0	.0	.0	.0	.0
TOT	.6	1.0	8.4	55.3	26.8	2.4	.9	.5	.0	4.1

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	82	72	70	65	61	59	57	65.5	551
06009	82	70	69	64	61	59	58	64.5	879
12015	77	72	70	65	61	59	58	65.1	536
18021	82	78	74	68	63	61	60	67.9	679
TOT	82	74	72	65	61	59	57	65.7	2645

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	1.0	8.1	29.0	39.5	22.4	82	210
06009	.0	.0	8.0	28.1	42.0	21.9	82	224
12015	.0	.0	7.3	30.6	41.8	20.3	82	232
18021	.0	1.7	24.3	33.9	30.4	9.6	76	230
TOT	0	6	108	273	344	165	80	896

MAY

PERIOD: (PRIMARY) 1913-1977
(OVER-ALL) 1870-1977

TABLE 17

AREA 0031, MOLLENDU
16.25 74.2WPCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	57 60	61 64	65 68	69 72	73 76	77 80	81 84	TOT	W FOG	NO FOG
14/16	.0	.0	.0	.1	.0	.0	.0	1	.0	.1
11/13	.0	.2	.3	.0	.0	.1	.0	6	.0	.7
9/10	.0	.1	.7	.0	.3	.1	.0	11	.0	1.2
7/8	.0	.7	.8	.8	.1	.1	.0	22	.0	2.4
6	.0	.3	.7	.9	.1	.0	.0	18	.1	1.8
5	.0	1.5	1.5	.5	.4	.2	.0	39	.1	4.1
4	.0	1.2	2.4	1.3	.1	.0	.0	46	.2	4.8
3	.1	2.2	2.7	1.2	.1	.0	.0	58	.0	6.3
2	.1	4.1	4.9	1.3	.2	.0	.0	98	.1	10.6
1	.2	3.2	4.7	2.0	.5	.0	.0	97	.2	10.3
0	.4	3.7	5.2	3.7	.7	.0	.1	127	.0	13.8
-1	.2	2.5	4.7	2.5	.0	.0	.0	91	.0	9.9
-2	.1	2.7	7.0	2.1	.0	.0	.0	109	.0	11.9
-3	.1	1.2	4.4	1.8	.0	.0	.0	69	.0	7.5
-4	.2	2.2	2.9	.9	.0	.0	.0	57	.0	6.2
-5	.1	2.0	2.3	.2	.0	.0	.0	42	.0	4.6
-6	.0	.8	1.1	.1	.1	.0	.0	19	.0	2.1
-7/-8	.0	.5	.0	.2	.0	.0	.0	7	.0	.8
-9/-10	.0	.1	.1	.0	.0	.0	.0	2	.0	.2
TOTAL	15	268	425	180	25	5	1	919	.8	99.2
PCT	1.6	29.2	46.2	19.6	2.7	.5	.1	100.0	.8	99.2

PERIOD: (OVER-ALL) 1963-1977

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	N						PCT	NE						PCT
	1-3	4-10	11-21	22-33	34-47	48+		1-3	4-10	11-21	22-33	34-47	48+	
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.6
1-2	.3	.3	.0	.0	.0	.0	.6	.0	.6	.0	.0	.0	.0	.6
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.3	.3	.0	.0	.0	.0	.6	.6	.7	.0	.0	.0	.0	1.3

HGT	E						PCT	SE						PCT
	1-3	4-10	11-21	22-33	34-47	48+		1-3	4-10	11-21	22-33	34-47	48+	
<1	.6	.5	.0	.0	.0	.0	1.0	1.1	3.0	.3	.0	.0	.0	4.4
1-2	.3	2.7	.2	.0	.0	.0	3.1	1.1	13.7	7.1	.0	.0	.0	21.9
3-4	.0	2.1	1.7	.0	.0	.0	3.8	.0	9.4	10.4	.6	.0	.0	20.4
5-6	.0	.2	.7	.0	.0	.0	.9	.0	.9	9.1	.7	.0	.0	10.8
7	.0	.0	.2	.0	.0	.0	.2	.0	.0	1.1	.7	.0	.0	1.8
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.8	.3	.0	.0	1.1
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.8	5.4	2.8	.0	.0	.0	9.1	2.2	27.0	28.9	2.2	.0	.0	60.4

PERIOD: (OVER-ALL) 1963-1977

MAY

AREA 0031 MOLLEND0
16.25 74.2W

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	1.8	.0	.0	.0	.0	2.4	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	7.2	2.2	.0	.0	.0	9.4	.0	1.5	.0	.0	.0	.0	.0	1.7
3-4	.0	3.4	3.3	.0	.0	.0	6.7	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.3	1.3	.4	.0	.0	2.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.4	.0	.0	1.3	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.3	.0	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.6	12.7	8.0	.8	.0	.0	22.1	.1	1.6	.0	.0	.0	.0	.0	1.7

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.7	.3	.0	.0	.0	.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.7	.3	.0	.0	.0	.0	1.0	.0	.0	.0	.0	.0	.0	.0	96.1

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	7.4	5.2	.3	.0	.0	.0	12.9	
1-2	3.0	23.8	9.4	.0	.0	.0	36.2	
3-4	.0	14.9	15.2	.6	.0	.0	30.6	
5-6	.0	1.4	11.0	1.1	.0	.0	13.5	
7	.0	.0	2.2	1.1	.0	.0	3.3	
8-9	.0	.0	1.1	.3	.0	.0	1.4	
10-11	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	10.5	47.4	39.1	3.0	.0	.0	100.0	363

PERIOD: (OVER-ALL) 1949-1977

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	2.2	6.8	14.8	9.7	2.8	.6	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	235
6-7	.0	1.6	6.4	7.2	5.1	1.3	.9	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	156
8-9	.0	.6	1.6	4.9	5.8	1.9	.7	.3	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	110
10-11	.0	.6	1.2	2.5	2.2	.3	.6	.1	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	53
12-13	.0	.0	1.0	.7	1.4	.4	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	26
>13	.0	.0	.0	.7	.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	9
INDET	2.0	1.9	4.1	2.2	1.2	.0	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	81
TOTAL	29	79	200	193	131	31	20	4	3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	693
PCT	4.2	11.4	29.0	28.0	19.0	4.5	2.9	.6	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0

PERIOD: (PRIMARY) 1913-1977
(OVER-ALL) 1855-1977

JUNE

AREA 0051 MOLLENDU
16.25 74.3W

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMDKE HAZE	SPRAY BLWG DUST	NO SIG WEA
N	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	10.0	.0	90.0
NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	6.2	.0	93.8
E	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.9	.0	.0	.0	99.1
SE	.2	.0	1.0	.0	.0	.0	.0	1.1	.3	.0	1.9	.0	4.0	.3	92.3
S	.0	.4	.3	.0	.0	.0	.0	.7	.7	.4	3.2	.0	5.5	.0	89.5
SW	.0	.0	4.1	.0	.0	.0	.0	4.1	.0	.0	1.0	.0	4.1	.0	90.7
W	.0	.0	.0	.0	.0	.0	.0	.0	18.2	.0	.0	.0	.0	.0	81.8
NW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	8.5	.0	4.3	.0	87.2
TOT PCT	.1	.1	.7	.0	.0	.0	.0	.9	.5	.1	2.3	.0	4.1	.2	91.9
TOT OBS:	1074														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMDKE HAZE	SPRAY BLWG DUST	NO SIG WEA
00003	.0	.0	.8	.0	.0	.0	.0	.8	.4	.0	2.3	.0	4.9	.0	91.7
06009	.0	.0	.7	.0	.0	.0	.0	.7	.4	.0	1.1	.0	2.8	.4	94.7
12015	.4	.4	.4	.0	.0	.0	.0	1.1	.7	.0	3.7	.0	4.0	.4	90.1
18021	.0	.0	1.0	.0	.0	.0	.0	1.0	.3	.3	3.1	.0	5.1	.0	90.2
TOT PCT	.1	.1	.7	.0	.0	.0	.0	.9	.4	.1	2.5	.0	4.2	.2	91.6
TOT OBS:	1113														

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							48+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)					
	0-3	4-10	11-21	22-33	34-47	00	03					06	09	12	15	18	21
N	.6	.8	.0	.0	.0	.0	1.4	4.1	.8	5.9	1.1	3.7	1.5	.0	.9	1.0	
NE	.7	1.1	.1	.0	.0	.0	1.9	5.5	1.0	.0	1.4	3.4	3.2	.0	1.4	1.5	
E	1.4	6.0	2.6	.4	.0	.0	10.5	9.0	7.0	5.9	8.8	16.0	14.0	10.5	9.5	9.6	
SE	2.4	26.4	23.6	2.2	.1	.0	54.7	11.1	51.9	38.2	52.3	45.7	58.6	55.3	61.1	57.2	
S	2.4	10.4	8.3	.1	.0	.0	18.2	8.8	25.4	20.6	20.2	10.6	13.4	21.1	18.9	16.9	
SW	.9	1.6	.5	.0	.0	.0	3.0	6.8	3.8	20.6	2.5	1.9	2.8	13.2	2.3	4.1	
W	.6	.4	.1	.0	.0	.0	1.1	4.5	1.0	2.9	1.8	1.2	.7	.0	.4	1.9	
NW	.8	.8	.0	.0	.0	.0	1.6	4.1	.6	.0	2.0	4.0	.6	.0	1.6	1.7	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	7.6						7.6	.0	8.5	5.9	9.9	13.5	5.1	.0	4.0	6.3	
TOT OBS	488	1339	908	78	5	0	2818	9.1	550	17	564	349	525	19	554	240	
TOT PCT	17.3	47.5	32.2	2.8	.2	.0	100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)						HOUR (GMT)						
	0-6	7-16	17-27	28-40	41+	TOTAL OBS	PCT FREQ	MEAN SPD	00	03	06	12	18
N	1.3	.1	.0	.0	.0	1.4	4.1		1.0	2.1	1.5	.9	
NE	1.4	.5	.1	.0	.0	1.9	5.5		1.0	2.2	3.1	1.4	
E	4.5	4.7	1.2	.1	.0	10.5	9.0		6.9	11.5	13.9	9.5	
SE	12.5	39.0	8.8	.4	.0	54.7	11.1		51.5	49.8	58.5	59.9	
S	7.6	8.9	1.7	.0	.0	18.2	8.8		25.2	16.5	13.6	18.3	
SW	1.8	1.0	.2	.0	.0	3.0	6.8		4.5	2.3	3.2	2.8	
W	.9	.1	.0	.0	.0	1.1	4.5		1.1	1.6	.7	.8	
NW	1.4	.2	.0	.0	.0	1.6	4.1		.6	2.8	.6	1.6	
VAR	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	
CALM	7.6					7.6	.0		8.5	11.3	5.0	4.7	
TOT OBS	1097	1270	337	14	0	2818	9.1		567	913	544	794	
TOT PCT	38.9	48.6	12.0	.5	.0	100.0			100.0	100.0	100.0	100.0	

PERIOD: (PRIMARY) 1913-1977
(OVER-ALL) 1855-1977

JUNE

AREA 0031 MOLLENDU
16.25 74.3M

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	11-21	22-33	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
00L03	8.5	7.9	49.0	32.3	2.1	.2	.0	9.1	100.0	567
06L09	11.3	12.2	47.9	26.4	2.3	.0	.0	8.0	100.0	913
12L15	5.0	9.4	44.9	37.5	2.9	.4	.0	9.9	100.0	544
18L21	4.7	8.3	47.0	35.3	3.7	.3	.0	9.9	100.0	794
TOT	215	273	1339	908	78	5	0	9.1		2818
PCT	7.6	9.7	47.5	32.2	2.8	.2	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8-10	TOTAL OBS	MEAN CLOUD COVER
N	.1	.0	.1	.7		7.0
NE	.1	.0	.2	1.2		7.3
E	.9	.2	1.9	3.9		6.4
SE	9.2	5.0	13.4	31.5		6.1
S	4.6	1.8	5.0	12.8		5.9
SW	.0	.0	.2	1.8		7.6
W	.0	.0	.0	.4		8.0
NW	.0	.0	.0	.1		8.0
VAR	.0	.0	.0	.0		.0
CALM	1.0	.2	.2	3.2		6.0
TOT OBS	129	59	168	450	806	6.1
TOT PCT	16.0	7.3	20.8	55.8	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8)
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

	000 149	150 299	300 599	400 999	1000 1999	2000 3999	3500 4999	5000 6499	6500 7999	8000+	NH <5/8 ANY HGT	TOTAL OBS
N	.0	.0	.0	.0	.5	.1	.0	.0	.0	.0	.2	
NE	.0	.0	.0	.4	.7	.2	.0	.0	.0	.0	.2	
E	.0	.0	.1	.5	2.3	1.8	.3	.2	.0	.0	1.6	
SE	.3	.2	1.3	7.0	20.1	10.1	2.1	.3	.0	.4	17.5	
S	.1	.2	.2	3.0	7.9	4.5	1.0	.0	.1	.0	7.2	
SW	.5	.0	.1	.1	.9	.2	.0	.0	.0	.0	.2	
W	.0	.0	.0	.0	.2	.1	.1	.0	.0	.0	.0	
NW	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.1	.0	.0	.7	1.0	1.5	.1	.0	.0	.0	1.2	
TOT OBS	8	3	14	95	272	150	29	4	1	3	227	806
TOT PCT	1.0	.4	1.7	11.8	33.7	18.6	3.6	.3	.1	.4	28.2	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE
OF CEILING HEIGHT (NH >4/8) AND VSBY (NH)

CEILING (FEET)	OR >10	OR >5	OR >2	VSBY (NH) OR >1	OR >1/2	OR >1/4	OR >50YD	OR >0
NK >6500	.5	.5	.5	.5	.5	.5	.5	.5
NK >5000	.8	1.0	1.0	1.0	1.0	1.0	1.0	1.0
NK >3500	4.3	4.7	4.7	4.7	4.7	4.7	4.7	4.7
NK >2000	19.0	23.3	23.6	23.6	23.6	23.6	23.6	23.6
NK >1000	47.9	56.3	57.0	57.0	57.0	57.0	57.0	57.0
NK >600	56.8	67.7	68.7	68.7	68.7	68.7	68.7	68.7
NK >300	57.4	69.1	70.4	70.4	70.4	70.4	70.4	70.4
NK >150	57.5	69.4	70.8	70.8	70.8	70.8	70.8	70.8
NK >0	57.8	70.2	71.6	71.7	71.7	71.7	71.7	71.7
TOTAL	480	583	595	596	596	596	596	596

TOTAL NUMBER OF OBS: 831

PCT FREQ NH <5/8: 28.3

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	OBS	TOTAL OBS
11.2	3.8	5.4	3.9	3.5	3.1	7.0	10.8	51.2	.1	902

PERIOD: (PRIMARY) 1913-1977
(OVER-ALL) 1855-1977

JUNE

TABLE 8

AREA 0031, MOLLEND
16.25 74.3W

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1<2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
2<5	PCP	.0	.0	.0	.1	.1	.1	.0	.0	.0	.0	.3	
	NO PCP	.0	*	.1	1.7	.7	.2	*	.0	.0	.1	2.9	
	TOT %	.0	*	.1	1.8	.7	.3	*	.0	.0	.1	3.2	
5<10	PCP	.0	.0	.0	.2	.1	.0	.0	.0	.0	.0	.3	
	NO PCP	.3	.7	1.9	13.4	3.8	.8	*	.0	.0	1.7	22.5	
	TOT %	.3	.7	1.9	13.6	3.9	.8	*	.0	.0	1.7	22.8	
10+	PCP	.0	.0	.0	.4	.0	.0	.0	.0	.0	.0	.4	
	NO PCP	.7	.8	5.4	44.1	18.2	1.2	.4	.2	.0	2.6	73.6	
	TOT %	.7	.8	5.4	44.4	18.2	1.2	.4	.2	.0	2.6	74.0	
TOT OBS													1074
TOT PCT		.9	1.5	7.4	59.9	22.9	2.3	.5	.2	.0	4.4	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPED
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	*	.1	.0	.0	.0	.0	.0	.1	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	*	.1	.0	.0	.0	.0	.0	.1	
2<5	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1	
	4-10	.0	.0	.1	.9	.3	.2	*	.0	.0		1.5	
	11-21	.0	*	*	.3	.2	.0	.0	.0	.0		.6	
	22+	.0	.0	.0	.2	.1	.0	.0	.0	.0		.3	
	TOT %	.0	*	.1	1.5	.3	.2	*	.0	.0	.1	2.5	
5<10	0-3	.1	.3	.3	.5	.4	.1	.0	.0	.0	1.8	3.4	
	4-10	.2	.2	1.1	5.6	2.0	.2	*	.1	.0		9.3	
	11-21	.0	.0	.4	4.8	1.2	.3	.0	.0	.0		6.6	
	22+	.0	.0	.0	.5	.0	.0	.0	.0	.0		.5	
	TOT %	.3	.5	1.8	11.4	3.5	.6	*	.1	.0	1.8	19.9	
10+	0-3	.2	.4	.6	1.3	1.5	.5	.1	.0	.0	5.5	10.1	
	4-10	.5	.7	4.0	21.9	10.6	.9	.3	.4	.0		39.1	
	11-21	.0	*	1.1	19.6	5.7	.1	.1	.0	.0		26.7	
	22+	.0	*	.1	1.4	.1	.0	.0	.0	.0		1.6	
	TOT %	.6	1.1	5.7	44.2	17.9	1.6	.5	.4	.0	5.5	77.5	
TOT OBS													1469
TOT PCT		.9	1.6	7.6	57.1	22.0	2.3	.6	.5	.0	7.4	100.0	

JUNE

PERIOD: (PRIMARY) 1913-1977
(OVER-ALL) 1855-1977

TABLE 10

AREA 0031, MOLLEND0
16.25 74.3WPERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NH >4/8) AND
OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000	150	300	600	1000	2000	3500	5000	6500	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00003	.5	.0	1.0	11.3	31.0	13.8	2.5	.0	.0	.0	60.1	39.9	203
06009	1.6	.0	1.1	11.7	30.9	19.1	3.2	.0	.0	.5	68.1	31.9	188
12015	.9	.0	2.2	15.9	38.9	20.4	4.4	1.3	.0	.4	84.5	15.5	226
18021	.9	1.3	2.2	7.0	30.0	20.4	4.3	.4	.4	.4	67.4	32.6	230
TOT	8	3	14	47	278	157	31	4	1	3	596	251	847
PCT	.9	.4	1.7	11.5	32.8	18.5	3.7	.5	.1	.4	70.4	29.6	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NH) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.0	.0	.0	2.1	21.2	76.7	339
06009	.0	.0	.0	2.0	18.9	79.1	440
12015	.0	.0	.3	3.3	20.8	75.6	332
18021	.0	.0	.0	2.5	21.7	75.8	397
TOT	0	0	1	37	310	1100	1508
PCT	.0	.0	.1	2.5	20.6	76.9	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NH) AND/OR
CEILING HGT (FEET, NH >4/8), BY HOUR

HOUR (GMT)	<150 <50VD	<600 <1	<1000 <5	1000+ AND5+	NH <5/8 AND 5+	TOTAL OBS
00003	.5	1.5	15.5	46.5	38.0	200
06009	1.6	2.7	15.8	54.9	29.3	184
12015	.9	3.2	21.2	65.8	13.1	222
18021	.9	4.4	13.8	56.9	29.3	225
TOT	8	25	138	468	225	631
PCT	1.0	3.0	16.6	56.3	27.1	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
80/84	.0	.0	.0	.1	.0	.0	.1	.0	2	.2
75/79	.0	.0	.0	.0	.1	.0	.0	.0	1	.1
70/74	.0	.0	.0	.1	.6	.2	.2	.0	11	1.2
65/69	.0	.0	.0	.1	5.3	10.8	8.0	4.1	267	28.4
60/64	.0	.0	.0	.1	5.7	22.1	24.8	11.2	601	63.9
55/59	.0	.0	.0	.0	.1	.6	3.0	2.6	59	6.3
TOTAL	0	0	0	4	112	318	339	168	941	100.0
PCT	.0	.0	.0	.4	11.9	33.8	36.0	17.9		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
80/84	.0	*	.1	.1	.0	.0	.0	.0	.0	.0
75/79	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0
70/74	.0	.0	.0	.7	.4	.0	.0	.0	.0	.0
65/69	.4	.2	1.7	17.5	6.8	.5	.1	.0	.0	1.2
60/64	.5	.8	4.1	38.9	13.9	1.7	.3	.1	.0	3.5
55/59	.1	*	1.2	2.8	1.8	.0	.0	.0	.0	.4
TOT	1.0	1.0	7.1	60.0	23.0	2.2	.4	.1	.0	5.1

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	80	68	67	63	59	57	54	62.8	583
06009	69	67	66	62	59	57	56	62.1	920
12015	80	68	66	63	59	58	57	62.5	551
18021	85	73	70	64	60	59	56	64.8	736
TOT	85	71	68	63	59	57	54	63.0	2790

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-39	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	.0	9.4	30.6	37.1	22.9	82	245
06009	.0	.0	9.7	31.1	36.1	23.1	82	238
12015	.0	.4	9.9	33.7	38.7	17.3	81	243
18021	.0	1.2	16.7	37.8	32.7	11.6	78	251
TOT	0	4	112	326	353	182	81	977

JUNE

PERIOD: (PRIMARY) 1913-1977
(OVER-ALL) 1855-1977

TABLE 17

AREA 0031 MOLLENDU
16.25 74.3WPCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	53 56	57 60	61 64	65 68	69 72	73 76	77 80	TOT	W FOG	WD FOG
11/13	.0	.0	.0	.0	.0	.1	.0	1	.0	.1
9/10	.0	.0	.3	.2	.1	.0	.0	6	.1	.5
7/8	.0	.1	.3	.5	.0	.0	.0	9	.0	.9
6	.0	.0	.1	.6	.5	.1	.0	13	.0	1.3
5	.0	.2	.7	1.2	.3	.0	.0	24	.1	2.2
4	.0	.3	2.2	1.6	.1	.0	.0	43	.1	4.1
3	.0	1.0	2.3	2.1	.2	.0	.0	58	.5	5.2
2	.0	2.2	4.3	3.5	.5	.0	.0	108	.2	10.3
1	.0	2.7	6.5	2.9	.1	.0	.1	127	.3	12.1
0	.0	3.4	10.5	4.1	.5	.1	.1	192	.4	18.3
-1	.0	1.9	6.5	3.0	.3	.0	.0	121	.3	11.3
-2	.0	.8	7.7	3.3	.0	.0	.0	121	.0	11.8
-3	.0	.7	6.7	1.6	.0	.0	.0	92	.3	8.7
-4	.0	.4	3.4	1.3	.0	.0	.0	52	.0	5.1
-5	.0	.4	1.8	1.0	.0	.0	.0	32	.1	3.0
-6	.0	.2	1.1	.3	.0	.0	.0	16	.0	1.6
-7/-8	.1	.3	.5	.2	.0	.0	.0	11	.0	1.1
-11/-13	.0	.1	.0	.0	.0	.0	.0	1	.0	.1
-14/-16	.0	.0	.1	.0	.0	.0	.0	1	.0	.1
TOTAL	1	151	565	280	26	3	2	1028	2.6	1002
PCT	.1	14.7	55.0	27.2	2.5	.3	.2	100.0	2.5	97.5

PERIOD: (OVER-ALL) 1963-1977

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0	.5	.0	.0	.0	.0	.0	.5
1-2	.2	.0	.0	.0	.0	.0	.2	.1	.3	.0	.0	.0	.0	.4
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.2	.0	.0	.0	.0	.0	.2	.6	.3	.0	.0	.0	.0	.9

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.4	.5	.0	.0	.0	.0	.9	1.2	1.4	.0	.0	.0	.0	2.6
1-2	.2	2.5	1.1	.0	.0	.0	3.8	.1	12.6	4.3	.0	.0	.0	17.1
3-4	.2	1.1	.6	.0	.0	.0	1.9	.0	8.3	12.5	.2	.0	.0	21.1
5-6	.0	.0	.6	.0	.0	.0	.6	.2	1.5	10.2	1.0	.2	.0	13.1
7	.0	.0	.2	.0	.0	.0	.2	.0	.0	1.3	.7	.5	.0	2.5
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.8	.2	.0	.0	1.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.2	.0	.0	.2
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.2	.0	.0	.3
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.5	.0	.0	.5
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.8	4.1	2.4	.0	.0	.0	7.3	1.5	23.8	29.3	3.2	.7	.0	58.5

PERIOD: (OVER-ALL) 1963-1977

JUNE

AREA 0031 MOLLENDO
16.25 74.3W

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.7	2.4	.0	.0	.0	.0	3.1	.5	.2	.0	.0	.0	.0	.0	.0
1-2	.7	7.8	1.3	.0	.0	.0	9.8	.0	.7	.2	.0	.0	.0	.0	1.0
3-4	.0	3.5	4.0	.2	.0	.0	7.8	.0	.2	.7	.0	.0	.0	.0	1.0
5-6	.0	.5	3.2	.2	.0	.0	3.9	.2	.0	.0	.0	.0	.0	.0	.2
7	.0	.0	.2	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.4	14.3	9.0	.5	.0	.0	25.2	.7	1.3	1.0	.0	.0	.0	.0	3.0

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.2
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.2	95.4

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	9.0	4.5	.0	.0	.0	.0	13.5	
1-2	2.6	23.7	6.9	.0	.0	.0	33.2	
3-4	.2	12.8	17.3	.5	.0	.0	30.8	
5-6	.5	1.9	18.5	1.2	.2	.0	17.3	
7	.0	.0	1.7	.7	.5	.0	2.8	
8-9	.0	.0	.0	.2	.0	.0	1.2	
10-11	.0	.0	.0	.2	.0	.0	.5	
12	.0	.0	.0	.2	.0	.0	.5	
13-16	.0	.0	.0	.5	.0	.0	.5	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	12.3	42.9	40.5	3.6	.7	.0	100.0	422

PERIOD: (OVER-ALL) 1949-1977

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	1.1	5.9	11.8	7.6	1.2	1.1	.5	.3	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	221	4
6-7	.0	.5	6.7	8.6	5.8	2.9	1.6	.4	.7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	203	6
8-9	.0	.3	3.2	5.9	3.1	1.5	1.6	.1	1.2	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	129	7
10-11	.0	.1	1.2	2.4	1.9	.9	1.1	.7	.5	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	67	7
12-13	.0	.0	1.2	1.3	.5	.4	.0	.8	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	34	7
>13	.0	.0	.0	.1	.4	.9	.1	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	13	8
INDEX	2.3	1.1	2.8	2.5	1.1	.7	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	85	4
TOTAL	25	59	201	213	104	63	37	17	24	4	0	0	0	0	0	0	0	0	0	747	5
PCT	3.3	7.9	26.9	28.5	13.9	8.4	5.0	2.3	3.2	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	

PERIOD: (PRIMARY) 1911-1977
(OVER-ALL) 1855-1977

JULY

AREA 0031 MOLLEND
16.25 74.1W

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							NO SIG WEA
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FGD WD PCPN	FGD WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	
N	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	90.0
E	.0	1.5	2.7	.0	.0	.0	.0	4.2	.0	.0	3.8	.0	10.7	.0	81.2
SE	.1	.3	1.3	.0	.0	.0	.0	1.7	1.0	.0	1.3	.0	2.3	.0	93.6
S	.0	.0	.7	.0	.0	.0	.0	.7	.4	.0	2.8	.0	4.1	.0	92.0
SW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3.4	.0	3.4	.0	93.2
W	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
NW	.0	.0	.0	.0	.0	.0	.0	.0	12.5	.0	.0	.0	.0	.0	87.5
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3.7	.0	3.7	.0	92.6
TOT PCT	.1	.3	1.1	.0	.0	.0	.0	1.5	.8	.0	1.9	.0	3.3	.0	92.5
TOT OBS:	1060														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							NO SIG WEA
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FGD WD PCPN	FGD WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	
00003	.0	.4	.8	.0	.0	.0	.0	1.2	.8	.0	3.1	.0	1.6	.0	93.3
06009	.3	.7	1.4	.0	.0	.0	.0	2.4	1.0	.0	.3	.0	2.8	.0	93.4
12015	.0	.0	1.5	.0	.0	.0	.0	1.5	1.1	.0	3.0	.0	3.4	.0	91.0
18021	.0	.0	.7	.0	.0	.0	.0	.7	.4	.0	1.5	.0	5.0	.0	91.4
TOT PCT	.1	.3	1.1	.0	.0	.0	.0	1.5	.8	.0	1.9	.0	3.4	.0	92.3
TOT OBS:	1079														

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							48+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)						
	0-3	4-10	11-21	22-33	34-47		00					03	06	09	12	15	18	21
N	.7	.9	.1	.0	.0	.0		1.7	4.5	.7	.0	1.7	4.5	2.0	.0	.7	1.2	
NE	.7	.7	.2	.0	.0	.0		1.6	5.3	.5	.0	2.2	2.4	2.3	3.6	1.4	.5	
E	1.4	4.6	2.3	.2	.0	.0		8.4	8.5	5.3	3.9	6.8	12.6	12.0	17.0	6.4	8.7	
SE	4.1	27.7	23.2	2.9	.0	.0		57.9	11.0	59.9	65.8	58.3	46.4	59.2	48.2	62.3	57.6	
S	3.0	9.7	4.1	.2	.0	.0		17.0	8.0	19.8	23.7	16.7	13.1	14.2	17.0	19.1	17.6	
SW	1.2	2.7	.2	.0	.0	.0		4.1	5.3	5.6	1.3	3.7	5.1	3.3	7.1	2.6	5.2	
W	.6	.9	.0	.0	.0	.0		1.5	4.3	1.1	.0	2.3	1.9	1.0	3.6	1.1	1.6	
NW	.7	.6	.0	.0	.0	.0		1.3	4.2	.7	.0	2.4	1.8	1.1	3.6	1.0	1.0	
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	6.5							6.5	.0	6.3	5.3	5.9	12.3	4.8	.0	5.5	6.6	
TOT OBS	583	1472	928	101	1	0	3085		8.9	572	19	614	381	578	28	604	289	
TOT PCT	18.9	47.7	30.1	3.3	.0	.0		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)						
	0-6	7-16	17-27	28-40	41+						00	03	06	12	15	18	21
N	1.4	.3	.0	.0	.0		.0	1.7	4.5	.7	2.8	1.9	.8				
NE	1.2	.4	.0	.0	.0		.0	1.6	5.3	.5	2.3	2.4	1.1				
E	3.0	4.1	.7	.0	.0		.0	8.4	8.5	5.3	9.0	12.2	7.2				
SE	14.3	33.6	9.6	.6	.0		.0	57.9	11.0	60.1	53.7	58.7	60.8				
S	8.1	7.8	1.0	.6	.0		.0	17.0	8.0	19.9	15.3	14.4	18.6				
SW	3.0	1.0	.0	.0	.0		.0	4.1	5.3	5.5	4.2	3.5	3.4				
W	1.3	.2	.0	.0	.0		.0	1.5	4.3	1.1	2.1	1.1	1.3				
NW	1.1	.3	.0	.0	.0		.0	1.3	4.2	.6	2.1	1.2	1.0				
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0				
CALM	6.5							6.5	.0	6.3	8.3	4.6	5.8				
TOT OBS	1249	1467	350	19	0	3085			8.9	591	995	606	893				
TOT PCT	40.5	47.6	11.3	.6	.0			100.0		100.0	100.0	100.0	100.0				

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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	11-21	22-33	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
0000Z	0.3	11.0	48.6	31.0	3.2	.0	.0	9.1	100.0	591
0600Z	0.3	13.9	48.7	25.9	3.1	.0	.0	8.2	100.0	995
1200Z	4.0	13.4	47.4	31.7	2.8	.2	.0	9.2	100.0	606
1800Z	5.8	11.1	46.2	33.0	3.8	.0	.0	9.4	100.0	893
TOT	200	383	1472	928	101	1	0	8.9		3085
PCT	6.5	12.4	47.7	30.1	3.3	*	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & 8-SCD	TOTAL OBS	MEAN CLOUD COVER
N	.0	.0	.3	.8		7.6
NE	.2	.3	.1	.6		5.6
E	.7	.6	1.1	4.0		6.5
SE	6.5	3.9	10.4	49.7		6.7
S	3.1	1.7	2.6	13.8		6.3
SW	.3	.3	.3	1.9		6.7
W	.0	.0	.0	.5		8.0
NW	.0	.0	.0	.5		8.0
VAR	.0	.0	.0	.0		.0
CALM	.5	.3	.3	1.4		5.6
TOT OBS	88	55	119	527	789	6.6
TOT PCT	11.2	7.0	15.1	66.8	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8)
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

000	150	300	600	1000	2000	3500	5000	6500	8000+	NH <5/8 ANY HGT	TOTAL OBS
149	299	599	999	1999	3499	4999	6499	7999			
.0	.0	.0	.0	.3	.5	.0	.0	.0	.0	.0	
.0	.0	.0	.1	.1	.2	.0	.0	.0	.0	.0	.7
.0	.0	.5	.6	1.8	1.1	.5	.1	.0	.1	1.7	
.4	1.5	10.3	24.7	10.2	2.6	.5	.2	.3	13.7		
.1	.4	2.2	1.9	7.8	4.8	.4	.1	.2	.1	5.2	
.0	.0	.0	.4	.9	.8	.0	.0	.0	.0	.7	
.0	.0	.0	.0	.1	.3	.0	.0	.0	.0	.1	
.0	.0	.0	.1	.3	.1	.0	.0	.0	.0	.0	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
.0	.0	.0	.3	.9	.4	.1	.0	.0	.0	.8	
.4	4	18	108	291	144	28	5	3	4	180	789
.5	.5	2.3	13.7	36.9	18.3	3.5	.6	.4	.5	22.8	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE
OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	= OR >10	= OR >5	= OR >2	VSBY (NM) = OR >1	= OR >1/2	= OR >1/4	= OR >50YD	= OR >0
= OR >6500	.8	.8	.9	.9	.9	.9	.9	.9
= OR >5000	1.0	1.4	1.6	1.6	1.6	1.6	1.6	1.6
= OR >3500	3.8	4.8	5.1	5.1	5.1	5.1	5.1	5.1
= OR >2000	17.9	22.5	23.3	23.3	23.3	23.3	23.3	23.3
= OR >1000	48.4	58.9	60.3	60.3	60.3	60.3	60.3	60.3
= OR >600	59.3	72.1	73.8	73.8	73.8	73.8	73.8	73.8
= OR >300	60.5	74.2	76.1	76.1	76.1	76.1	76.1	76.1
= OR >150	60.8	74.6	76.6	76.6	76.6	76.6	76.6	76.6
= OR >0	61.0	75.1	77.1	77.1	77.1	77.1	77.1	77.1
TOTAL	487	600	616	616	616	616	616	616

TOTAL NUMBER OF OBS: 799

PCT FREQ NH <5/8: 22.9

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	9	TOTAL OBS
7.0	4.9	4.7	2.6	3.8	2.9	5.1	9.4	59.5	.0	889

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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.2	
	TOT %	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.2	
1<2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.1	
	TOT %	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.1	
2<5	PCP	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	.2	
	NO PCP	.0	.1	.4	1.0	.6	.2	.0	.0	.0	.2	2.5	
	TOT %	.0	.1	.6	1.0	.6	.2	.0	.0	.0	.2	2.7	
5<10	PCP	.0	.0	.0	.7	.1	.0	.0	.0	.0	.0	.8	
	NO PCP	.2	.2	1.9	12.4	3.3	.8	.4	.9	.0	.8	20.8	
	TOT %	.2	.2	1.9	13.1	3.4	.8	.4	.9	.0	.8	21.5	
10+	PCP	.0	.0	.1	.4	.1	.0	.0	.0	.0	.0	.6	
	NO PCP	.4	.9	3.6	48.1	17.8	1.8	.3	.3	.0	1.6	74.9	
	TOT %	.4	.9	3.7	48.5	17.9	1.8	.3	.3	.0	1.6	75.5	
TOT OBS													1060
TOT PCT		.5	1.2	6.2	63.1	22.1	2.8	.8	.8	.0	2.5	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1	
	TOT %	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1	
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.1	
	11-21	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.1	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.1	
2<5	0-3	.0	.1	.1	.1	.1	.1	.0	.0	.0	.2	.7	
	4-10	.0	.0	.2	.7	.2	.1	.0	.0	.0	.0	1.2	
	11-21	.0	.0	.2	.3	.1	.0	.0	.0	.0	.0	.6	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.1	.6	1.1	.5	.1	.0	.0	.0	.2	2.5	
5<10	0-3	.1	.1	.4	.9	.3	.4	.3	.4	.0	.9	3.8	
	4-10	.1	.0	.9	4.5	1.8	.4	.1	.2	.0	.0	8.1	
	11-21	.0	.1	.5	5.4	.9	.0	.0	.0	.0	.0	6.9	
	22+	.0	.0	.0	.7	.1	.0	.0	.0	.0	.0	.8	
	TOT %	.2	.2	1.8	11.4	3.2	.8	.4	.7	.0	.9	19.6	
10+	0-3	.0	.3	.2	1.7	2.3	.5	.1	.0	.0	3.6	8.6	
	4-10	.2	.3	2.8	21.9	9.3	1.5	.4	.2	.0	.0	36.8	
	11-21	.1	.2	1.7	22.4	5.2	.3	.0	.0	.0	.0	29.9	
	22+	.0	.0	.0	2.2	.0	.0	.0	.0	.0	.0	2.2	
	TOT %	.3	.8	4.7	48.2	16.8	2.4	.5	.2	.0	3.6	77.6	
TOT OBS													1457
TOT PCT		.5	1.1	7.1	60.8	20.6	3.3	1.0	.9	.0	4.7	100.0	

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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NH >4/8) AND
OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 949	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00003	.5	1.0	1.0	9.5	29.5	16.5	2.0	1.5	.5	1.0	63.0	37.0	200
06009	.0	.0	2.0	14.2	41.1	18.3	3.0	.0	.5	.5	79.7	20.3	197
12015	.5	.5	2.4	15.6	41.2	19.9	3.3	1.4	.5	.5	85.8	14.2	211
18021	.9	.5	3.3	13.1	32.7	15.9	5.1	.0	.0	.0	71.5	28.5	214
TOT	4	4	18	108	297	145	28	6	3	4	617	205	822
PCT	.5	.5	2.2	13.1	36.1	17.6	3.4	.7	.4	.5	79.1	24.9	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NH) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.0	.0	.0	2.7	20.0	76.7	330
06009	.0	.0	.0	1.4	20.2	78.4	436
12015	.0	.0	.0	3.3	21.5	75.2	331
18021	.0	.0	.5	3.7	18.9	76.8	380
TOT	0	2	2	40	297	1136	1477
PCT	.0	.1	.1	2.7	20.1	76.9	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NH) AND/OR
CEILING HGT (FEET, NH >4/8) BY HOUR

HOUR (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND 5+	NH <5/8 AND 5+	TOTAL OBS
00003	.5	2.6	15.4	51.3	33.3	195
06009	.0	2.1	18.2	64.1	17.7	192
12015	.5	3.4	21.0	66.8	12.2	205
18021	1.0	4.8	20.8	53.6	25.6	207
TOT	4	26	151	471	177	799
PCT	.5	3.3	18.9	58.9	22.2	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
70/74	.0	.0	.0	.2	.2	.1	.4	.0	9	.9
65/69	.0	.0	.0	.7	2.7	5.2	2.2	.7	111	11.5
60/64	.0	.0	.0	.9	9.6	28.0	24.0	4.5	647	67.0
55/59	.0	.0	.0	.0	.5	4.8	11.4	3.7	197	20.4
50/54	.0	.0	.0	.0	.0	.1	.0	.0	1	.1
TOTAL	0	0	0	18	126	368	367	86	965	100.0
PCT	.0	.0	.0	1.9	13.1	38.1	38.0	8.9		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
70/74	.0	.0	.0	.6	.3	.0	.0	.0	.0	.0
65/69	.0	.0	.0	7.1	2.8	.6	.0	.2	.0	.1
60/64	.5	.5	2.4	44.7	14.2	1.4	.7	.8	.0	2.0
55/59	.3	.1	1.8	11.9	4.2	.8	.2	.2	.0	.8
50/54	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0
TOTAL	.8	.6	4.9	64.4	21.6	2.8	.9	1.2	.0	2.9

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	69	68	65	61	58	56	54	61.3	594
06009	69	66	64	61	58	56	55	60.6	1005
12015	80	68	65	61	57	56	55	61.0	609
18021	76	72	68	63	59	57	56	63.3	780
TOT	80	69	66	61	58	57	54	61.6	2988

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	1.7	7.2	36.4	44.5	10.2	81	236		
06009	.0	.8	14.3	38.0	37.2	9.8	80	266		
12015	.0	1.2	11.9	35.8	42.4	8.6	80	243		
18021	.0	3.8	17.7	42.6	29.1	6.8	76	237		
TOT	0	18	126	375	376	87	79	982		

JULY

PERIOD: (PRIMARY) 1911-1977
(OVER-ALL) 1855-1977

TABLE 17

AREA 0031 MOLLENDU
18.25 74.1WPCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	53 56	57 60	61 64	65 68	69 72	73 76	TOT	N FOG	NO FOG
14/16	.0	.0	.1	.1	.0	.0	2	.0	.2
11/13	.0	.1	.2	.0	.0	.1	4	.0	.4
9/10	.0	.3	.2	.1	.3	.1	10	.0	1.0
7/8	.0	.3	.3	.5	.1	.0	12	.0	1.2
6	.0	.1	.0	.4	.1	.0	6	.0	.6
5	.0	.2	.6	.6	.2	.0	16	.0	1.7
4	.0	.6	2.0	1.2	.3	.0	40	.1	4.0
3	.0	1.2	2.1	1.1	.1	.0	44	.1	4.4
2	.1	2.5	4.2	1.5	.0	.0	82	.4	8.1
1	.0	4.4	7.4	1.1	.2	.0	128	.5	12.7
0	.1	5.7	10.6	.8	.0	.0	167	.0	17.3
-1	.1	5.0	7.5	1.1	.1	.0	134	.1	13.7
-2	.2	5.6	7.1	.6	.0	.0	131	.3	13.2
-3	.1	3.9	4.8	.6	.0	.0	91	.2	9.2
-4	.0	3.4	2.1	.0	.1	.0	54	.1	5.5
-5	.2	1.1	1.5	.1	.0	.0	29	.0	3.0
-6	.1	.3	.1	.2	.0	.0	7	.0	.7
-7/-8	.0	1.0	.1	.0	.0	.0	11	.0	1.1
TOTAL	9	348	494	100	15	2	968	18	950
PCT	.9	36.0	51.0	10.3	1.5	.2	100.0	1.9	98.1

PERIOD: (OVER-ALL) 1963-1977

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.2
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.2	.2	.0	.0	.0	.5
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.1
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.0	.0	.0	.0	.0	.0	.0	.2	.5	.0	.0	.0	.8

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.2	.6	.0	.0	.0	.0	.8	1.2	2.2	.2	.0	.0	.0	3.7
1-2	.2	3.1	.5	.0	.0	.0	3.8	.8	13.2	5.4	.0	.0	.0	19.3
3-4	.0	.4	1.3	.0	.0	.0	1.7	.0	8.8	14.6	.5	.0	.0	23.8
5-6	.0	.2	.4	.0	.0	.0	.6	.0	1.4	12.5	.7	.0	.0	14.5
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	3.9	1.2	.0	.0	5.1
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.4	.9	.0	.0	2.4
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.2
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.4	4.2	2.2	.0	.0	.0	8.8	2.0	25.3	38.0	3.5	.0	.0	69.1

PERIOD: (OVER-ALL) 1963-1977

JULY

AREA 0031 MOLLEND
16.25 74.1W

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.5	.5	.7	.0	.0	.0	1.0	.0	.2	.0	.0	.0	.0	.5
1-2	1.4	4.1	.5	.0	.0	.0	6.0	.9	.8	.0	.0	.0	.0	1.8
3-4	.2	4.7	2.9	.0	.0	.0	7.9	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.4	2.1	.0	.0	.0	2.5	.0	.0	.7	.0	.0	.0	.7
7	.0	.0	.8	.0	.0	.0	.8	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.2	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	2.1	9.9	7.1	.0	.0	.0	19.0	.9	1.3	.7	.0	.0	.0	2.9

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.2	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.2	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	98.8

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	4.2	3.7	.9	.0	.0	.0	8.8	
1-2	3.5	20.9	6.5	.0	.0	.0	30.9	
3-4	.5	13.9	18.8	.5	.0	.0	33.6	
5-6	.0	1.9	15.5	.7	.0	.0	18.1	
7	.0	.0	4.6	1.2	.0	.0	5.8	
8-9	.0	.0	1.4	.9	.0	.0	2.6	
10-11	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.2	.0	.0	.2	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	8.1	40.6	47.8	3.5	.0	.0	100.0	431

PERIOD: (OVER-ALL) 1949-1977

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	3.0	8.0	14.7	9.6	5.0	1.1	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	317
6-7	.0	.4	6.1	9.9	5.7	2.5	1.2	.7	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	203
8-9	.0	.1	1.2	2.4	3.3	2.8	1.4	.9	.1	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	89
10-11	.0	.8	.9	1.2	1.8	1.4	.9	.0	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	56
12-13	.0	.0	.7	.1	1.2	.9	.3	.5	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	32
13	.0	.0	.0	.4	.4	.1	.7	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	8
INDET	1.7	1.7	8	1.2	.5	.0	.5	.4	.3	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	55
TOTAL	36	84	185	188	136	67	95	14	11	3	1	0	0	0	0	0	0	0	0	0	760
PCT	4.7	11.1	24.3	24.7	17.9	8.8	4.6	1.8	1.4	.4	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0

PERIOD: (PRIMARY) 1911-1977
(OVER-ALL) 1855-1977

AUGUST

AREA 0031 MOLLENDO
16.1S 74.2W

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

PRECIPITATION TYPE										OTHER WEATHER PHENOMENA					
WIND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER PRIN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST BLWG SNOW	NO SIG WEA
N	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	17.4	.0	82.6
NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	22.2	.0	.0	.0	77.8
E	1.1	.0	.0	.0	.0	.0	.0	1.1	.0	.0	2.1	2.1	5.8	.0	88.9
SE	.3	.4	.2	.0	.0	.0	.0	.8	1.1	.0	1.6	.0	2.0	.0	94.4
S	.4	.3	.3	.0	.0	.0	.0	.9	1.8	.0	1.7	.0	1.2	.0	94.4
SW	.0	.0	10.4	.0	.0	.0	.0	10.4	2.6	.0	.0	.0	.0	.0	87.0
W	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
NW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	4.2	.0	.0	.0	.0	4.2	.0	.0	8.3	.0	.0	.0	87.5
TOT PCT	.3	.3	.5	.0	.0	.0	.0	1.1	1.2	.0	1.8	.1	1.9	.0	93.8
TOT OBS:	982														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER PRIN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST BLWG SNOW	NO SIG WEA
00003	.4	.4	.8	.0	.0	.0	.0	1.7	1.7	.0	.8	.0	.8	.0	95.0
06009	.0	.4	.4	.0	.0	.0	.0	.8	1.5	.0	1.1	.0	1.5	.0	95.1
12015	.8	.4	.4	.0	.0	.0	.0	1.6	.8	.0	3.7	.4	1.2	.0	92.2
18021	.0	.0	.4	.0	.0	.0	.0	.4	.8	.0	1.5	.0	4.2	.0	93.1
TOT PCT	.3	.3	.5	.0	.0	.0	.0	1.1	1.2	.0	1.8	.1	2.0	.0	93.8
TOT OBS:	1006														

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							48+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)						
	0-3	4-10	11-21	22-33	34-47	00	03					06	09	12	15	18	21	
N	.5	.5	.0	.0	.0	.0	1.0	3.8	.3	.0	.6	2.4	1.4	.0	1.1	.7		
NE	.3	.5	.1	.0	.0	.0	.9	5.1	.2	.0	1.2	1.2	1.4	.0	.8	.4		
E	1.5	4.0	2.4	.3	.0	.0	8.2	9.1	5.4	.0	7.9	11.9	11.0	15.2	8.1	4.2		
SE	3.1	22.2	25.2	3.7	.2	.0	54.4	12.0	52.6	56.8	53.2	40.2	57.1	63.0	58.8	55.5		
S	3.5	11.6	6.4	.8	.0	.0	22.3	9.2	29.0	34.1	22.5	10.3	19.1	8.7	22.7	22.4		
SW	1.1	2.0	.4	.1	.0	.0	3.7	6.5	4.1	.0	3.4	4.7	2.2	8.7	2.9	6.3		
W	.7	1.1	.0	.0	.0	.0	1.8	4.3	1.6	.0	2.0	2.9	1.4	.0	.6	4.1		
NW	.6	.7	.0	.0	.0	.0	1.3	4.1	1.5	.0	2.2	2.8	.6	.0	.5	.6		
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
CALM	6.4						6.4	.0	5.4	9.1	7.0	11.6	5.8	4.3	4.5	5.9		
TOT OBS	590	1262	1023	146	6	0	2967		9.8	573	11	586	362	539	23	602	271	
TOT PCT	17.9	42.5	34.5	4.9	.2	.0		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)				TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)			
	0-6	7-16	17-27	28-40				00	03	09	18
N	.9	.1	.0	.0	.0		1.0	3.8	.3	1.3	1.4
NE	.7	.2	.0	.0	.0		.9	5.1	.2	1.2	1.4
E	2.3	3.7	1.2	.0	.0		8.2	9.1	5.3	9.4	11.2
SE	11.4	30.6	11.4	1.0	.0		54.4	12.0	52.7	50.5	57.3
S	9.3	10.1	2.9	.1	.0		22.3	9.2	29.1	20.1	18.6
SW	2.5	.9	.1	.1	.0		3.7	6.5	4.0	3.9	2.4
W	1.5	.3	.0	.0	.0		1.8	4.3	1.5	2.3	1.3
NW	1.2	.1	.0	.0	.0		1.3	4.1	1.5	2.4	.6
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0
CALM	6.4						6.4	.0	5.3	8.8	5.7
TOT OBS	1108	1363	462	34	0	2967		9.8	584	948	562
TOT PCT	37.3	45.9	15.6	1.1	.0		100.0		100.0	100.0	100.0

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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)				48+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47					
00003	5.5	10.8	44.2	34.4	5.0	.2	.0	.0	9.9	100.0	584
06009	8.8	15.1	42.0	30.3	3.8	.1	.0	.0	8.8	100.0	948
12015	5.7	9.4	40.4	38.6	5.7	.2	.0	.0	10.4	100.0	562
18021	4.9	9.3	43.4	36.4	5.6	.3	.0	.0	10.3	100.0	873
TOT	190	340	1282	1023	146	6	0	0	9.8		2967
PCT	6.4	11.5	42.5	34.5	4.9	.2	.0	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	.0	.0	.1	.1		7.0
NE	.1	.0	.1	.1		3.5
E	.1	.5	.6	3.7		7.1
SE	6.1	3.2	13.8	38.1		6.6
S	2.9	1.8	6.9	16.6		6.6
SW	.1	.1	.7	.1		6.8
W	.0	.0	.0	.1		8.0
NW	.0	.0	.1	.1		7.7
VAR	.0	.0	.0	.0		7.6
CALM	.0	.0	.7	2.0		7.6
TOT OBS	67	39	165	441	712	6.7
TOT PCT	9.4	5.5	23.2	61.9	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8)
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

	000	150	300	600	1000	2000	3500	5000	6500	8000+	NH <5/8 ANY HGT	TOTAL OBS
	149	299	599	999	1999	3499	4999	6499	7999			
N	.0	.0	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0
NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3
E	.0	.1	.0	.9	2.6	.6	.1	.0	.0	.0	.0	.7
SE	.2	.2	.8	12.2	23.7	9.3	1.3	.2	.1	.3	12.9	
S	.4	.2	.3	5.2	10.1	4.6	.8	.1	.0	.0	6.5	
SW	.0	.0	.0	.2	.7	.3	.0	.0	.0	.0	.1	.3
W	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0
NW	.0	.0	.0	.4	.0	.1	.0	.0	.0	.0	.0	.0
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.3	.6	.7	1.0	.0	.0	.0	.0	.1	.0
TOT OBS	4	4	10	138	272	114	16	2	1	4	147	712
TOT PCT	.6	.6	1.4	19.4	38.2	16.0	2.2	.3	.1	.6	20.6	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE
OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)							
	>10	>5	>2	>1	>1/2	>1/4	>50YD	>0
NH >6500	.3	.7	.7	.7	.7	.7	.7	.7
NH >5000	.5	1.0	1.0	1.0	1.0	1.0	1.0	1.0
NH >3500	2.5	3.2	3.2	3.2	3.2	3.2	3.2	3.2
NH >2000	17.1	19.6	19.8	19.8	19.8	19.8	19.8	19.8
NH >1000	50.3	56.7	57.5	57.5	57.5	57.5	57.5	57.5
NH >600	66.5	75.3	77.0	77.0	77.0	77.0	77.0	77.0
NH >300	67.2	76.1	78.3	78.3	78.3	78.5	78.5	78.5
NH >150	67.8	76.7	78.9	78.9	78.9	79.0	79.0	79.0
NH >0	67.9	77.2	79.4	79.4	79.4	79.6	79.6	79.6
TOTAL	495	563	579	579	579	580	580	580

TOTAL NUMBER OF OBSI 729

PCT FREQ NH <5/8 20.4

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

	0	1	2	3	4	5	6	7	8 OBSCD	TOTAL OBS
	6.6	2.4	3.5	3.5	3.8	3.0	8.4	12.9	55.9	798

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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSRY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1	
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1<2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
2<5	PCP	.0	.0	.1	.2	.0	.0	.0	.0	.0	.0	.2	
	NO PCP	.0	.0	.1	1.7	.7	.0	.0	.0	.0	.2	2.8	
	TOT %	.0	.0	.2	1.9	.7	.0	.0	.0	.0	.2	3.0	
5<10	PCP	.0	.0	.0	.1	.0	.2	.0	.0	.0	.1	.4	
	NO PCP	.3	.1	.9	9.2	4.2	.3	.3	.5	.0	.5	16.2	
	TOT %	.3	.1	.9	9.3	4.2	.5	.3	.5	.0	.6	16.6	
10+	PCP	.0	.0	.0	.3	.3	.0	.0	.0	.0	.0	.5	
	NO PCP	.3	.4	3.8	49.5	22.1	1.5	.2	.5	.0	1.5	79.8	
	TOT %	.3	.4	3.8	49.8	22.4	1.5	.2	.5	.0	1.5	80.3	
TOT OBS													977
TOT PCT		.6	.5	4.8	61.0	27.3	2.0	.5	1.0	.0	2.5	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED
WITH VARYING VALUES OF VISIBILITY

VSRY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1<2	0-3	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.1	
	4-10	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.1	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.1	.1	.0	.0	.0	.0	.0	.0	.1	
2<5	0-3	.0	.0	.0	.1	.1	.0	.0	.0	.0	.3	.6	
	4-10	.0	.0	.1	1.0	.3	.0	.0	.0	.0	.0	1.3	
	11-21	.0	.0	.0	.4	.2	.0	.0	.0	.0	.0	.5	
	22+	.0	.0	.0	.2	.1	.0	.0	.0	.0	.0	.2	
	TOT %	.0	.0	.1	1.6	.7	.0	.0	.0	.0	.3	2.8	
5<10	0-3	.1	.0	.1	.9	.7	.1	.1	.4	.0	1.1	3.7	
	4-10	.1	.0	.7	3.3	1.8	.2	.1	.0	.0	.0	6.2	
	11-21	.0	.1	.1	3.5	.9	.0	.0	.0	.0	.0	4.5	
	22+	.0	.0	.0	.3	.0	.0	.0	.0	.0	.0	.3	
	TOT %	.2	.1	1.0	8.0	3.4	.4	.2	.4	.0	1.1	14.8	
10+	0-3	.2	.0	.5	1.6	2.4	.6	.3	.3	.0	3.6	9.6	
	4-10	.1	.2	2.2	19.1	11.2	1.1	.4	.3	.0	.0	34.5	
	11-21	.0	.1	1.6	23.7	7.7	.3	.0	.1	.0	.0	33.5	
	22+	.0	.0	.1	3.5	.9	.1	.0	.0	.0	.0	4.6	
	TOT %	.3	.3	4.3	47.9	22.2	2.0	.8	.6	.0	3.6	82.2	
TOT OBS													1945
TOT PCT		.5	.4	5.6	57.6	26.3	2.5	1.0	1.0	.0	5.1	100.0	

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PERIOD: (PRIMARY) 1911-1977
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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET) NH >4/8) AND
OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL ANY MGT	NH <5/8 TOTAL OBS
00603	.0	1.1	2.2	17.8	30.0	17.8	2.8	1.1	.0	.6	73.3	26.7
06609	.0	.0	1.8	22.5	43.2	12.4	.0	.0	.0	.0	81.1	18.9
12615	.0	.5	1.6	20.0	41.1	18.4	1.6	.0	.0	1.1	84.2	15.8
18621	1.5	.0	.5	17.1	35.2	16.6	4.0	.0	.5	.5	75.9	24.1
TOT	4	4	11	142	275	121	16	2	1	4	580	158
PCT	.5	.5	1.5	19.2	37.3	16.4	2.2	.3	.1	.5	78.6	21.4

TABLE 11

PERCENT FREQUENCY VSBY (NH) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00603	.0	.0	.0	1.6	12.4	86.0	307
06609	.0	.0	.0	2.7	16.3	80.9	404
12615	.3	.0	.3	3.7	13.5	82.1	296
18621	.0	.0	.3	3.6	17.2	76.9	361
TOT	1	0	2	40	206	1119	1368
PCT	.1	.0	.1	2.9	15.1	81.8	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NH) AND/OR
CEILING HGT (FEET) NH >4/8) BY HOUR

HOUR (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ ANDS+	NH <5/8 AND 5+	TOTAL OBS
00603	.0	3.4	21.3	52.8	25.8	178
06609	.6	3.0	25.7	56.3	18.0	167
12615	.0	2.1	25.0	61.7	13.3	188
18621	1.5	2.0	22.4	55.6	21.9	196
TOT	4	19	172	413	144	729
PCT	.5	2.6	23.6	56.7	19.8	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
70/74	.0	.0	.0	.1	.2	.0	.1	.1	5	.6
65/69	.0	.0	.0	.5	1.2	3.5	1.1	.2	54	6.5
60/64	.0	.0	.0	.2	7.6	26.4	23.2	6.4	529	63.9
55/59	.0	.0	.0	.0	.6	6.2	14.7	7.4	239	28.9
50/54	.0	.0	.0	.0	.0	.0	.0	.1	1	.1
TOTAL	0	0	0	7	80	299	324	118	828	100.0
PCT	.0	.0	.0	.8	9.7	36.1	39.1	14.3		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
70/74	.0	.0	.0	.4	.2	.*	.0	.0	.0	.0
65/69	.1	.1	.3	3.9	2.0	.1	.0	.0	.0	.0
60/64	.1	.2	2.9	38.9	16.9	1.4	.3	1.0	.0	2.1
55/59	.4	.0	1.1	17.1	7.9	.8	.3	.2	.0	1.2
50/54	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0
TOTAL	.6	.4	4.2	60.4	27.0	2.4	.6	1.1	.0	3.3

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	90%	5%	1%	MIN	MEAN	TOTAL OBS
00603	72	66	64	61	58	56	54	60.7	384
06609	73	65	63	60	57	56	55	59.8	959
12615	74	66	64	60	57	56	55	60.2	565
18621	76	71	68	63	59	57	55	62.9	788
TOT	76	69	65	61	57	56	54	60.9	2696

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00603	.0	.0	.0	.1	.2	.0	.1	.1	52	210
06609	.0	.4	.4	34.4	45.4	15.4	82	227		
12615	.0	.5	8.7	37.9	40.3	12.6	80	206		
18621	.0	2.4	15.8	39.7	28.7	13.4	78	209		
TOT	0	7	80	309	332	124	81	892		

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TABLE 17

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PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	53 56	57 60	61 64	65 68	69 72	73 76	TOT	N FOG	NO FOG
11/13	.0	.1	.0	.0	.2	.1	4	.0	.4
9/10	.0	.2	.1	.2	.1	.0	6	.0	.7
7/8	.0	.5	.5	.5	.0	.0	15	.0	1.6
6	.0	.1	.7	.5	.2	.0	14	.0	1.5
5	.0	.1	1.3	.7	.3	.0	22	.0	2.4
4	.0	.5	2.3	.8	.0	.0	33	.0	3.6
3	.0	1.5	2.6	1.3	.1	.0	51	.0	5.6
2	.0	4.4	4.5	1.4	.0	.0	85	.1	9.2
1	.0	5.5	6.1	1.0	.0	.0	115	.2	12.4
0	.3	7.3	10.5	.1	.0	.0	167	.7	17.4
-1	.1	7.0	7.7	.2	.0	.0	197	.2	14.8
-2	.3	6.8	5.4	.3	.0	.0	117	.4	12.4
-3	.3	4.3	2.3	.2	.0	.0	67	.1	7.2
-4	.2	3.3	.7	.0	.0	.0	38	.1	4.0
-5	.0	1.8	.9	.0	.0	.0	24	.0	2.6
-6	.3	.9	.1	.0	.0	.0	12	.0	1.3
-7/-8	.1	.4	.1	.0	.0	.0	6	.0	.7
-9/-10	.1	.0	.0	.0	.0	.0	1	.0	.1
TOTAL	17	411	418	58	9	1	914	17	897
PCT	1.9	45.0	45.7	6.3	1.0	.1	100.0	1.9	98.1

PERIOD: (OVER-ALL) 1963-1977

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	.0	.0	.0	.3
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	.0	.0	.0	.3

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0	.6	2.1	.1	.0	.0	.0	2.8
1-2	.3	.5	.2	.0	.0	.0	1.0	1.2	10.8	3.0	.0	.0	.0	17.0
3-4	.0	.7	.3	.2	.0	.0	1.2	.3	6.3	15.1	1.0	.0	.0	22.7
5-6	.0	.0	.2	.0	.0	.0	.2	.0	.9	10.9	.7	.3	.0	12.8
7	.0	.0	.0	.0	.0	.0	.0	.3	.0	4.7	1.1	.0	.0	6.1
8-9	.0	.0	.5	.0	.0	.0	.5	.0	.1	1.0	1.2	.0	.0	2.2
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	.0	.0	.0	.3
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	.3	.0	.0	.6
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.3	1.2	1.2	.2	.0	.0	3.0	2.3	20.1	37.4	4.2	.3	.0	64.3

PERIOD: (OVER-ALL) 1963-1977

AUGUST

AREA 0031 MOLLEND
16.15 74.2W

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.9	2.0	.2	.0	.0	.0	3.0	.3	.0	.0	.0	.0	.0	.3
1-2	1.4	7.2	1.4	.0	.0	.0	10.0	.1	.1	.0	.0	.0	.0	.1
3-4	.6	3.3	5.4	.2	.0	.0	9.5	.0	.4	.1	.0	.0	.0	.5
5-6	.3	.6	2.2	.2	.0	.0	2.3	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.5	.7	.0	.0	1.2	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.2	.2	.3	.0	.0	.7	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	3.1	13.3	9.9	1.4	.0	.0	27.7	.4	.4	.1	.0	.0	.0	.9

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	.3	.0	.0	.0	.0	.3	
1-2	.0	.0	.0	.0	.0	.0	.0	.3	.0	.3	.0	.0	.0	.6	
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.0	.0	.0	.0	.0	.0	.0	.3	.3	.3	.0	.0	.0	.9	97.1

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	6.2	4.2	.3	.0	.0	.0	10.8	
1-2	3.4	18.4	6.8	.0	.0	.0	28.6	
3-4	.8	10.5	20.7	1.4	.0	.0	33.4	
5-6	.3	1.4	13.0	.8	.3	.0	15.9	
7	.3	.0	5.1	1.7	.0	.0	7.1	
8-9	.0	.3	1.7	1.4	.0	.0	3.4	
10-11	.0	.0	.3	.0	.0	.0	.3	
12	.0	.0	.3	.3	.0	.0	.6	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	11.0	34.8	48.2	5.7	.3	.0	100.0	353

PERIOD: (OVER-ALL) 1950-1977

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	1.2	7.8	13.1	6.9	3.2	1.5	.3	.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	226
6-7	.0	.2	8.3	12.8	4.2	2.0	2.2	.2	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	194
8-9	.0	.2	1.4	4.6	4.5	1.7	.6	.2	.0	.2	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	87
10-11	.0	1.1	.8	1.7	1.1	1.4	.8	1.1	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	52
12-13	.0	.0	.9	1.2	.8	.3	.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	25
>13	.0	.0	.0	.0	.3	.3	.2	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	7
INDET	1.2	2.2	2.2	1.4	1.7	.3	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	39
TOTAL	16	74	173	186	102	49	31	13	4	1	0	0	1	0	0	0	0	0	0	0	650
PCT	2.5	11.4	26.6	28.6	15.7	7.5	4.8	2.0	.6	.2	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	100.0

SEPTEMBER

PERIOD: (PRIMARY) 1912-1977
(OVER-ALL) 1872-1977AREA 0031 MOLLENDO
16.25 74.2W

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THOR LTNG	FOG WQ PCPN	FOG WQ PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
N	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
E	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	4.8	.0	.0	.0	95.2
SE	.3	.6	1.7	.0	.0	.0	.0	2.7	1.1	.5	.8	.0	2.3	.0	92.5
S	.2	.0	2.3	.0	.0	.0	.0	2.5	.8	.0	1.3	.0	2.6	.0	92.8
SW	1.4	.0	.0	.0	.0	.0	.0	1.4	.0	.0	9.5	.0	.0	.0	89.2
W	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	6.7	.0	.0	.0	93.3
NW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	5.1	.0	5.1	.0	89.7
TOT PCT	.3	.4	1.7	.0	.0	.0	.0	2.4	.9	.3	1.5	.0	2.4	.0	92.6
TOT OBS:	1093														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THOR LTNG	FOG WQ PCPN	FOG WQ PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
0603	.4	.4	1.1	.0	.0	.0	.0	1.8	.4	.4	1.1	.0	2.1	.0	94.3
0609	.4	.4	3.2	.0	.0	.0	.0	3.9	.7	.7	.7	.0	1.8	.0	92.3
12015	.4	1.2	1.6	.0	.0	.0	.0	3.1	2.0	.0	2.8	.0	1.6	.0	90.6
18021	.0	.0	1.1	.0	.0	.0	.0	1.1	.7	.0	1.8	.0	4.3	.0	92.1
TOT PCT	.3	.5	1.7	.0	.0	.0	.0	2.5	.9	.3	1.5	.0	2.5	.0	92.4
TOT OBS:	1101														

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							48+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)						
	0-3	4-10	11-21	22-33	34-47	00	03					06	09	12	15	18	21	
N	.4	.3	*	.0	.0	.0	.8	4.2	.5	.0	.9	3.2	.2	.0	.3	.0		
NE	.1	.3	*	.0	.0	.0	.4	6.8	.2	.0	.2	.8	.5	.0	.5	.0		
E	1.1	7.5	1.5	.1	.0	.0	6.3	8.4	3.9	3.2	5.2	12.1	9.3	.0	5.5	3.5		
SE	3.4	27.3	22.3	1.9	*	.0	54.9	10.7	53.1	69.4	56.0	48.4	56.0	72.9	55.9	57.0		
S	3.7	13.8	6.9	.3	*	.0	24.8	8.7	29.6	17.7	24.1	16.5	23.3	21.5	27.4	25.5		
SW	1.1	2.2	.4	.0	.0	.0	3.7	6.0	5.5	6.5	2.6	2.8	2.0	5.6	3.5	6.5		
W	.8	.5	*	.0	.0	.0	1.3	3.6	.9	.0	1.4	1.7	.5	.0	2.1	2.1		
NW	.4	.5	*	.0	.0	.0	.9	4.2	.9	.0	.7	2.4	.8	.0	.6	.7		
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
CALM	6.8						6.8	.0	5.4	3.2	9.0	12.1	7.1	.0	4.1	4.6		
TOT OBS	558	1507	976	72	1	0	3114		8.9	613	31	625	380	546	36	579	304	
TOT PCT	17.9	48.4	31.3	2.3	*	.0		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	

TABLE 3A

WNO DIR	WIND SPEED (KNOTS)					41+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)				
	0-6	7-16	17-27	28-40	00 03					06 09	12 15	18 21		
N	.6	.1	.0	.0	.0			.8	4.2	.5	1.8	.2	.2	
NE	.2	.2	.0	.0	.0			.4	6.8	.2	.4	.6	.3	
E	2.5	3.3	.5	.0	.0			6.3	8.4	3.9	7.8	8.8	4.9	
SE	13.9	32.4	4.3	.3	.0			54.9	10.7	53.9	33.1	57.1	56.3	
S	10.8	11.3	4.6	.0	.0			24.8	8.7	29.1	21.2	23.2	26.8	
SW	2.5	1.1	.1	.0	.0			3.7	6.0	5.6	2.7	2.2	4.5	
W	1.2	.1	.0	.0	.0			1.3	3.6	.8	1.5	.5	2.1	
NW	.8	.1	.0	.0	.0			.9	4.2	.9	1.3	.8	.6	
VAR	.0	.0	.0	.0	.0			.0	.0	.0	.0	.0	.0	
CALM	6.8							6.8	.0	5.3	10.1	6.7	4.3	
TOT OBS	1231	1512	360	11	0	3114			8.9	644	1005	582	883	
TOT PCT	39.5	48.6	11.6	.4	.0			100.0		100.0	100.0	100.0	100.0	

SEPTEMBER

PERIOD: (PRIMARY) 1912-1977
(OVER-ALL) 1872-1977

AREA 0031 MOLLEND
16.25 74.2W

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	WIND SPEED (KNOTS)							PCT FREQ	TOTAL OBS
		1-3	4-10	11-21	22-33	34-47	48+	MEAN		
0000	5.3	11.3	48.1	32.3	3.0	.0	.0	9.2	100.0	644
0600	10.1	12.7	48.7	26.9	1.6	.0	.0	6.0	100.0	1005
1200	6.7	9.6	44.2	37.1	2.4	.0	.0	9.5	100.0	582
1800	4.3	10.0	51.1	31.9	2.6	.1	.0	9.3	100.0	883
TOT	213	345	1507	976	72	1	0	8.9		3114
PCT	6.8	11.1	48.4	31.3	2.3	.0	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	.1	.0	.0	.1	5.0	
NE	.1	.0	.0	.0	2.0	
E	.3	.1	.6	2.3	7.0	
SE	6.3	3.1	10.8	34.6	6.6	
S	5.0	2.6	8.1	18.2	6.2	
SW	.2	.3	.4	.8	6.2	
W	.1	.0	.0	.6	6.7	
NW	.0	.0	.0	.0	1.0	
VAR	.0	.0	.0	.0	.0	
CALM	.1	.2	.8	2.2	7.1	
TOT OBS	104	53	175	516	848	6.5
TOT PCT	12.3	6.3	20.6	60.8	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8)
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

	000 149	150 299	300 599	600 999	1000 1999	2000 2499	2500 4999	5000 6499	6500 7999	8000+ ANY HGT	NH <5/8 TOTAL OBS
N	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2
NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1
E	.0	.0	.0	.4	1.4	.6	.1	.0	.0	.0	.7
SE	.5	.1	1.4	9.5	19.3	10.6	1.3	.5	.1	.4	12.9
S	.2	.0	.7	4.2	10.0	6.6	2.4	.1	.3	.6	8.7
SW	.0	.0	.0	.4	.4	.4	.2	.0	.0	.0	.5
W	.0	.0	.0	.0	.3	.2	.0	.0	.0	.0	.2
NW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.8	1.2	.5	.1	.0	.0	.0	.8
TOT OBS	6	1	18	129	276	160	35	5	4	8	206
TOT PCT	.7	.1	2.1	15.2	32.5	18.9	4.1	.6	.5	.9	24.3

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE
OF CEILING HEIGHT (NH >4/8) AND VSBY (NH)

CEILING (FEET)	VSBY (NH)							
	>10	>5	>2	>1	>1/2	>1/4	>50YD	>0
>= NH >5000	.8	1.3	1.4	1.4	1.4	1.4	1.4	1.4
>= NH >4000	1.4	1.9	2.0	2.0	2.0	2.0	2.0	2.0
>= NH >3000	4.7	6.0	6.1	6.1	6.1	6.1	6.1	6.1
>= NH >2000	21.2	24.5	24.9	24.9	24.9	24.9	24.9	24.9
>= NH >1000	48.4	56.9	57.5	57.5	57.5	57.5	57.5	57.5
>= NH >600	60.2	71.6	72.8	72.8	72.8	72.8	72.8	72.8
>= NH >300	61.4	73.8	75.1	75.1	75.1	75.1	75.1	75.1
>= NH >150	61.5	73.9	75.2	75.2	75.2	75.2	75.2	75.2
>= NH >0	61.6	74.2	75.3	75.3	75.3	75.3	75.3	75.3
TOTAL	524	631	642	642	642	642	643	643

TOTAL NUMBER OF OBS: 850

PCT FREQ NH <5/8: 24.4

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8 OBSCD	TOTAL OBS
7.7	3.8	5.7	3.5	3.4	2.9	4.7	11.9	55.8	933

PERIOD: (PRIMARY) 1912-1977
(OVER-ALL) 1872-1977

SEPTEMBER

AREA 0091, MOLLEND
16.25 74.2W

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1	.2	
	TOT %	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1	.2	
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.1	.1	.0	.0	.0	.0	.2	
	TOT %	.0	.0	.0	.0	.1	.1	.0	.0	.0	.0	.2	
1<2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
2<5	PCP	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.2	
	NO PCP	.0	.0	.1	.7	.5	.0	.0	.0	.0	.0	1.3	
	TOT %	.0	.0	.1	.7	.5	.0	.0	.0	.0	.0	1.5	
5<10	PCP	.0	.0	.0	1.0	.5	.0	.0	.0	.0	.0	1.5	
	NO PCP	.0	.0	.8	11.7	5.2	.4	.2	.0	.0	1.0	19.4	
	TOT %	.0	.0	.8	12.7	5.7	.4	.2	.0	.0	1.0	20.9	
10+	PCP	.0	.0	.0	.5	.2	.0	.0	.0	.0	.0	.8	
	NO PCP	.2	.1	2.5	43.3	26.1	1.0	.5	.2	.0	2.5	76.4	
	TOT %	.2	.1	2.5	43.8	26.3	1.0	.5	.2	.0	2.5	77.2	
TOT OBS													1061
TOT PCT		.2	.1	3.3	57.3	32.9	1.6	.7	.2	.0	3.7	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1	.1	
1/2<1	0-3	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1	
	4-10	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.1	.1	.0	.0	.0	.0	.1	
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
2<5	0-3	.0	.0	.0	.0	.1	.0	.0	.0	.0	.3	.4	
	4-10	.0	.0	.1	.8	.5	.0	.0	.0	.0	.0	1.4	
	11-21	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.3	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.1	1.1	.6	.0	.0	.0	.0	.3	2.1	
5<10	0-3	.0	.0	.1	.4	.5	.1	.1	.0	.0	1.1	2.3	
	4-10	.0	.0	.8	6.2	3.3	.2	.1	.0	.0	.0	10.6	
	11-21	.0	.0	.2	5.9	1.6	.1	.0	.0	.0	.0	7.8	
	22+	.0	.0	.0	.4	.0	.0	.0	.0	.0	.0	.4	
	TOT %	.0	.0	1.1	12.8	5.4	.4	.2	.0	.0	1.1	21.1	
10+	0-3	.1	.0	.4	1.5	2.2	.4	.1	.1	.0	4.3	9.1	
	4-10	.1	.1	1.3	17.1	13.0	1.2	.2	.1	.0	.0	33.2	
	11-21	.0	.0	1.0	21.7	8.9	.1	.0	.0	.0	.0	31.7	
	22+	.0	.0	.0	2.0	.7	.0	.0	.0	.0	.0	2.6	
	TOT %	.2	.1	2.7	42.3	24.8	1.7	.4	.2	.0	4.3	76.5	
TOT OBS													1414
TOT PCT		.2	.1	3.9	56.1	30.9	2.2	.6	.2	.0	5.8	100.0	

SEPTEMBER

PERIOD: (PRIMARY) 1912-1977
(OVER-ALL) 1872-1977

AREA 0031 MOLLEND
10.25 74.2W

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NH >4/8) AND
OCCURRENCE OF NH <3/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <3/8 ANY HGT	TOTAL OBS
00603	.4	.0	2.2	12.6	34.3	16.1	2.6	.4	.9	.9	70.4	29.6	230
06609	.5	.0	2.1	13.7	34.2	16.8	4.7	.0	.5	1.1	73.7	26.3	190
12615	.9	.0	3.2	17.2	34.4	24.4	3.6	.9	.0	.9	85.5	14.5	221
18621	.9	.4	1.3	16.2	24.9	16.2	5.2	.9	.4	.9	67.2	32.8	229
TOT	6	1	19	130	277	160	35	5	4	8	645	225	870
PCT	.7	.1	2.2	14.9	31.8	18.4	4.0	.6	.5	.9	74.1	25.9	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00603	.3	.3	.0	1.5	19.3	78.7	342
06609	.0	.2	.0	1.7	23.6	74.5	416
12615	.3	.0	.0	3.0	24.7	71.9	299
18621	.0	.0	.0	2.5	17.2	80.3	366
TOT	2	2	0	30	301	1088	1423
PCT	.1	.1	.0	2.1	21.2	76.5	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR
CEILING HGT (FEET, NH >4/8), BY HOUR

HOUR (GMT)	<150 <30YD	<600 <1	<1000 <5	1000+ AND 5+	NH <3/8 AND 5+	TOTAL OBS
00603	.4	2.7	15.5	56.2	28.3	226
06609	.0	2.2	16.5	59.9	23.6	182
12615	.9	4.1	23.9	63.8	12.4	218
18621	.4	2.2	20.1	48.7	31.3	224
TOT	4	24	162	484	204	850
PCT	.5	2.8	19.1	56.9	24.0	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
75/79	.0	.0	.0	.0	.1	.1	.0	.0	2	.2
70/74	.0	.0	.0	.1	.7	.0	.2	.0	10	1.0
65/69	.0	.0	.0	.3	1.7	3.9	1.9	.8	86	8.7
60/64	.0	.0	.0	.1	4.6	26.8	24.0	8.7	636	64.2
55/59	.0	.0	.0	.0	.3	4.2	13.4	7.8	255	25.8
50/54	.0	.0	.0	.0	.0	.0	.0	.1	1	.1
TOTAL	0	0	0	5	74	347	392	172	990	100.0
PCT	.0	.0	.0	.5	7.5	35.1	39.6	17.4		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
75/79	.0	.0	.2	.1	.0	.0	.0	.0	.0	.0
70/74	.0	.0	.0	.5	.4	.1	.0	.0	.0	.0
65/69	.0	.0	.3	4.4	3.4	.3	.1	.0	.0	.3
60/64	.1	.1	1.5	37.9	21.0	1.1	.6	.1	.0	1.8
55/59	.1	.0	.9	16.4	7.3	.2	.0	.0	.0	.8
50/54	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0
TOTAL	.2	.1	2.8	59.4	32.2	1.7	.7	.1	.0	2.9

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	90%	5%	1%	MIN	MEAN	TOTAL OBS
00603	80	66	65	61	57	56	55	61.0	641
06609	66	65	64	60	57	56	54	60.2	1003
12615	79	67	64	61	57	56	55	60.8	569
18621	75	72	69	63	59	57	55	63.5	747
TOT	80	69	66	61	57	56	54	61.3	2960

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-39	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00603	.0	.0	8.9	32.7	39.9	18.5	82	248
06609	.0	.4	3.8	31.3	40.8	23.8	83	265
12615	.0	.0	3.0	35.3	43.1	18.5	83	232
18621	.0	1.6	14.3	40.5	35.3	8.3	78	252
TOT	0	5	75	348	396	173	81	997

SEPTEMBER

PERIOD: (PRIMARY) 1912-1977
(OVER-ALL) 1872-1977

AREA 0031 MOLLEND
16.25 74.24

TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	53 56	57 60	61 64	65 68	69 72	73 76	77 80	TOT	W FOG	WD FOG
14/16	.0	.0	.0	.0	.1	.2	.1	4	.0	.4
11/13	.0	.0	.0	.2	.1	.0	.0	3	.0	.3
9/10	.0	.0	.0	.3	.3	.0	.0	6	.0	.6
7/8	.0	.1	.2	.8	.7	.0	.0	18	.0	1.8
6	.0	.2	.4	.9	.2	.0	.1	18	.0	1.8
5	.0	.5	1.7	1.5	.0	.0	.0	37	.1	3.7
4	.0	.3	2.0	2.0	.0	.0	.0	43	.0	4.4
3	.2	1.8	3.8	.7	.0	.0	.0	54	.2	5.3
2	.2	4.2	6.0	1.0	.0	.1	.0	119	.2	12.0
1	.1	5.4	9.1	.2	.0	.0	.0	145	.2	14.6
0	.4	6.1	8.5	1.2	.0	.0	.0	159	.3	16.0
-1	.3	7.8	6.0	.2	.0	.0	.0	140	.1	14.2
-2	.3	5.3	4.3	.1	.0	.0	.0	98	.0	10.0
-3	.1	3.4	1.9	.1	.0	.0	.0	54	.1	5.4
-4	.4	2.2	.9	.0	.0	.0	.0	35	.0	3.6
-5	.1	1.5	.2	.0	.0	.0	.0	18	.0	1.8
-6	.1	.5	.0	.0	.0	.0	.0	6	.0	.6
-7/-8	.1	.5	.1	.0	.0	.0	.0	7	.0	.7
-9/-10	.0	.0	.1	.0	.0	.0	.0	1	.0	.1
-11/-13	.0	.0	.1	.0	.0	.0	.0	1	.0	.1
TOTAL	23	391	451	92	16	3	2	978	12	98.6
PCT	2.4	40.0	46.1	9.4	1.6	.3	.2	100.0	1.2	98.6

PERIOD: (OVER-ALL) 1963-1977

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.2
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.2

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0	.2	2.3	.5	.0	.0	.0	3.1
1-2	.2	.4	.6	.0	.0	.0	1.2	.1	9.7	3.4	.0	.0	.0	13.2
3-4	.0	.2	1.0	.0	.0	.0	1.2	.1	7.2	16.3	1.2	.0	.0	24.7
5-6	.0	.0	.2	.0	.0	.0	.2	.0	1.5	8.7	1.8	.0	.0	12.0
7	.0	.2	.2	.0	.0	.0	.4	.0	.1	2.4	1.5	.0	.0	4.0
8-9	.0	.0	.2	.0	.0	.0	.2	.0	.2	1.0	.2	.0	.0	1.5
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.5	.0	.0	.5
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.1	.0	.0	.3
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.2
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.2	.9	2.3	.0	.0	.0	3.3	.4	21.0	32.9	5.3	.0	.0	59.5

PERIOD: (OVER-ALL) 1963-1977

SEPTEMBER

AREA 0031 MOLLEND
16.25 74.2W

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.4	1.3	.2	.0	.0	.0	2.0	.1	.1	.0	.0	.0	.0	.1
1-2	.0	9.0	3.1	.0	.0	.0	12.1	.0	.9	.5	.0	.0	.0	1.3
3-4	.2	4.6	6.0	.0	.0	.0	10.8	.0	.0	.0	.0	.0	.0	.0
5-6	.0	1.7	1.3	.2	.0	.0	3.2	.0	.1	.0	.0	.0	.0	.1
7	.0	.0	1.2	.0	.0	.0	1.4	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.2	.2	.0	.0	.0	.4	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.2	.2	.0	.0	.4	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.6	16.8	12.3	.6	.0	.0	30.3	.1	1.0	.5	.0	.0	.0	1.5

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.2	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.2	.0	.0	.0	.0	.0	.2	.1	.0	.0	.0	.0	.0	.1	.0
3-4	.0	.2	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.4	.2	.0	.0	.0	.0	.7	.1	.0	.0	.0	.0	.0	.1	95.6

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	5.6	3.6	.7	.0	.0	.0	10.0	
1-2	.7	20.0	7.5	.0	.0	.0	28.2	
3-4	.2	12.4	23.1	1.2	.0	.0	37.0	
5-6	.0	3.2	10.2	1.9	.0	.0	15.3	
7	.0	.2	3.9	1.7	.0	.0	5.8	
8-9	.0	.5	1.5	.2	.0	.0	2.2	
10-11	.0	.0	.5	.5	.0	.0	.5	
12	.0	.0	.5	.2	.0	.0	.7	
13-16	.0	.0	.2	.0	.0	.0	.2	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	6.6	39.9	47.7	5.8	.0	.0	100.0	411

PERIOD: (OVER-ALL) 1949-1977

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	1.6	6.5	15.3	6.5	2.1	.9	.3	.0	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	254
6-7	.0	1.3	6.4	11.2	4.0	1.6	1.3	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	198
8-9	.0	.4	2.9	5.7	6.1	1.5	1.6	.3	.8	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	147
10-11	.0	.0	.8	2.4	3.2	1.2	.8	.3	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	67
12-13	.0	.0	.0	.4	.7	.7	.1	.5	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	34
>13	.0	.0	.0	.0	.0	.5	.3	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	11
INDET	.9	.5	.9	.8	.7	.0	.3	.1	.4	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	39
TOTAL	19	66	213	206	126	48	37	13	18	4	0	0	0	0	0	0	0	0	0	0	750
PCT	2.5	8.8	28.4	27.5	16.8	6.4	4.9	1.7	2.4	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0

PERIOD: (PRIMARY) 1911-1977
(OVER-ALL) 1884-1977

OCTOBER

AREA 0021 HOLLEND
16.25 74.0W

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

PRECIPITATION TYPE										OTHER WEATHER PHENOMENA					
WIND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OBS TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST BLWG SNOW	NO SIG WEA
N	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	22.2	.0	77.8
NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	14.3	.0	85.7
E	.0	.0	2.2	.0	.0	.0	.0	2.2	.0	.0	.0	.0	10.9	.0	86.9
SE	.3	.0	.4	.0	.0	.0	.0	.7	1.0	.0	2.2	.0	3.0	.0	93.1
S	.3	.0	.3	.0	.0	.0	.0	.9	.8	.0	2.7	.0	2.6	.0	93.1
SW	.0	.0	1.0	.0	.0	.0	.0	1.0	.0	.0	.0	.0	1.0	.0	97.9
W	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	22.9	.0	77.1
NW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	12.9	.0	87.1
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	7.4	.0	14.8	.0	77.8
TOT PCT	.3	.0	.5	.0	.0	.0	.0	.8	.8	.0	2.3	.0	3.8	.0	92.3
TOT OBS:	985														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA								
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OBS TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
00003	.0	.0	.8	.0	.0	.0	.0	.8	.4	.0	2.0	.0	2.8	.0		94.0
06009	1.1	.0	.7	.0	.0	.0	.0	1.8	.4	.0	1.8	.0	2.5	.0		93.2
12015	.0	.0	.4	.0	.0	.0	.0	.4	2.5	.4	3.4	.0	3.8	.0		89.5
18021	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.9	.0	6.2	.0		91.8
TOT PCT	.3	.0	.5	.0	.0	.0	.0	.8	.8	.2	2.3	.0	3.8	.0		92.2
TOT OBS:	1021															

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							48+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)						
	0-3	4-10	11-21	22-33	34-47	00	03					06	09	12	15	18	21	
N	.7	.3	.1	.0	.0	.0	1.0	3.7	.4	.0	.7	3.5	1.2	.0	.5	.4		
NE	.2	.4	.0	.0	.0	.0	.6	5.0	.1	.0	.5	1.3	1.4	.0	.5	.0		
E	.7	4.2	1.3	.0	.0	.0	6.2	7.9	4.1	.0	6.8	10.6	8.6	12.9	3.5	3.2		
SE	4.8	27.9	15.1	1.2	.0	.0	49.1	9.5	43.5	56.9	48.3	46.5	53.8	62.1	52.5	48.5		
S	3.9	17.9	6.4	.3	.0	.0	28.5	8.1	36.5	23.6	27.4	17.4	23.6	21.8	32.5	32.6		
SW	.9	3.2	.2	.0	.0	.0	4.3	5.8	4.3	13.9	4.0	4.3	2.4	.0	4.9	7.5		
W	1.1	.8	.0	.0	.0	.0	1.9	3.7	1.8	.0	2.5	2.1	1.3	3.2	1.4	2.5		
NW	.5	.5	.0	.0	.0	.0	1.0	3.9	.6	.0	1.6	2.5	.6	.0	.7	.1		
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
CALM	7.4						7.4	.0	8.8	5.6	8.2	11.8	7.3	.0	3.4	5.2		
TOT OBS	591	1629	682	47	0	0	2949		571	18	599	398	510	31	553	269		
TOT PCT	20.0	55.2	23.1	1.6	.0	.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0		

TABLE 3A

WMO DIR	0-6	WIND SPEED (KNOTS)				41+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)			
		7-16	17-27	28-40	00 03					06 09	12 15	18 21	
N	.9	.1	.0	.0	.0		1.0	3.7	.3	1.8	1.1	.5	
NE	.5	.0	.0	.0	.0		.6	5.0	.1	.8	1.3	.3	
E	3.0	2.8	.3	.0	.0		6.2	7.9	4.0	8.3	8.8	3.4	
SE	15.8	27.6	5.6	.1	.0		49.1	9.5	43.9	47.6	54.3	51.2	
S	13.2	13.7	1.6	.0	.0		28.5	8.1	36.1	23.4	23.5	32.5	
SW	3.2	1.1	.1	.0	.0		4.3	5.8	4.6	4.1	2.2	5.8	
W	1.7	.2	.0	.0	.0		1.9	3.7	1.8	2.3	1.4	1.8	
NW	.9	.2	.0	.0	.0		1.0	3.9	.6	.0	.6	.5	
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	
CALM	7.4						7.4	.0	8.7	9.6	6.8	4.0	
TOT OBS	1373	1350	224	2	0	2949		7.9	589	997	541	622	
TOT PCT	46.6	45.8	7.6	.1	.0		100.0		100.0	100.0	100.0	100.0	

PERIOD: (PRIMARY) 1911-1977
(OVER-ALL) 1864-1977

OCTOBER

TABLE 4

AREA 0031 MOLLEND
16.25 74.0H

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)				MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47	48+			
00003	8.7	14.9	51.4	23.1	1.9	.0	.0	7.8	100.0	589
00009	9.6	14.5	37.7	16.9	1.3	.0	.0	6.9	100.0	997
12015	6.8	10.4	54.3	27.4	1.1	.0	.0	8.3	100.0	541
18021	4.0	10.3	55.6	28.0	2.1	.0	.0	8.8	100.0	822
TOT	217	374	1629	602	47	0	0	7.9		2949
PCT	7.4	12.7	55.2	23.1	1.6	.0	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & DBSCD	TOTAL OBS	MEAN CLOUD COVER
N	.1	.0	.0	.3		6.0
NE	.1	.0	.0	.1		4.5
E	.1	.1	.5	2.7		7.4
SE	7.7	2.5	10.6	30.8		6.4
S	7.5	3.0	6.8	20.9		5.9
SW	.1	.1	.4	1.4		7.2
W	.2	.0	.1	.4		5.8
NW	.0	.1	.0	.3		6.7
VAR	.0	.0	.0	.0		.0
CALM	.3	.3	.1	2.3		6.9
TOT OBS	125	47	143	460	775	6.2
TOT PCT	16.1	6.1	18.5	59.4	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8)
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH <5/8 ANY HGT	TOTAL OBS
.0	.0	.0	.0	.1	.2	.0	.0	.0	.0	.1	
.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.2	
.0	.0	.1	1.0	.9	.7	.0	.1	.0	.0	.5	
.0	.3	.5	8.0	16.1	9.9	1.4	.5	.3	.5	13.9	
.1	.5	.8	6.3	10.0	4.1	1.8	.3	.3	.7	13.3	
.0	.1	.1	.3	.7	.4	.2	.0	.0	.0	.2	
.0	.1	.0	.2	.0	.1	.0	.0	.0	.0	.0	
.0	.0	.0	.1	.1	.0	.0	.0	.0	.0	.1	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
.0	.1	.0	1.0	.9	.5	.0	.0	.0	.0	.5	
.1	.9	12	131	224	124	26	8	4	10	226	775
.1	1.2	1.5	16.9	28.9	16.0	3.4	1.0	.5	1.3	29.2	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE
OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)							
	OR >10	OR >5	OR >2	OR >1	OR >1/2	OR >1/4	OR >50YD	OR >0
OR >6500	1.5	1.8	2.0	2.0	2.0	2.0	2.0	2.0
OR >5000	2.5	2.8	3.0	3.0	3.0	3.0	3.0	3.0
OR >3500	4.9	6.0	6.3	6.3	6.3	6.3	6.3	6.3
OR >2000	17.2	21.9	22.1	22.1	22.1	22.1	22.1	22.1
OR >1000	43.3	50.6	51.4	51.4	51.4	51.4	51.4	51.4
OR >600	55.2	66.6	67.8	67.8	67.8	67.8	67.8	67.8
OR >300	56.4	68.0	69.3	69.3	69.3	69.3	69.3	69.3
OR >150	57.0	69.0	70.5	70.5	70.5	70.5	70.5	70.5
OR > 0	57.2	69.1	70.6	70.6	70.6	70.6	70.6	70.6
TOTAL	455	550	562	562	562	562	562	562

TOTAL NUMBER OF OBS 796

PCT FREQ NH <5/8 29.4

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8 DBSCD	TOTAL OBS
11.7	5.9	4.3	3.6	3.7	4.0	4.8	10.2	51.8	854

PERIOD: (PRIMARY) 1911-1977
(OVER-ALL) 1864-1977

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AREA 0031 MOLLENOO
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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1/2<1	PCP	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.2	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.2	
1<2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
2<5	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.1	.4	1.3	.0	.0	.0	.0	.1	2.3	
	TOT %	.0	.0	.1	.4	1.3	.0	.0	.0	.0	.1	2.3	
5<10	PCP	.0	.0	.0	.2	.3	.0	.0	.0	.0	.0	.5	
	NO PCP	.3	.0	.9	11.0	7.3	.6	.5	.9	.0	.6	21.6	
	TOT %	.3	.0	.9	11.2	7.6	.7	.5	.9	.0	.6	22.2	
10+	PCP	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.1	
	NO PCP	.2	.2	2.4	38.8	29.1	1.8	.4	.3	.0	2.0	75.2	
	TOT %	.2	.2	2.5	38.8	29.1	1.8	.4	.3	.0	2.0	75.3	
TOT OBS													984
TOT PCT		.5	.2	3.5	51.0	38.0	2.4	.9	.8	.0	2.7	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.3	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.1	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.1	
1<2	0-3	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1	.1	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1	.1	
2<5	0-3	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1	.2	
	4-10	.0	.0	.1	.4	.8	.0	.0	.0	.0	.0	1.3	
	11-21	.0	.0	.0	.3	.1	.0	.0	.0	.0	.0	.4	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.1	.7	1.0	.0	.0	.0	.0	.1	1.9	
5<10	0-3	.2	.0	.1	.9	.7	.1	.3	.3	.0	1.0	3.7	
	4-10	.0	.0	.4	5.5	3.5	.3	.1	.2	.0	.0	10.1	
	11-21	.0	.0	.3	3.7	1.7	.1	.0	.0	.0	.0	5.8	
	22+	.0	.0	.0	.3	.1	.0	.0	.0	.0	.0	.4	
	TOT %	.2	.0	.8	10.3	6.1	.6	.3	.5	.0	1.0	19.9	
10+	0-3	.0	.0	.2	2.3	2.6	.2	.1	.2	.0	4.8	10.3	
	4-10	.1	.1	2.1	20.2	17.7	2.1	.3	.3	.0	.0	42.8	
	11-21	.1	.1	.7	14.8	7.1	.2	.0	.0	.0	.0	22.9	
	22+	.0	.0	.0	1.4	.3	.1	.0	.0	.0	.0	1.9	
	TOT %	.1	.1	2.9	38.6	27.9	2.5	.4	.5	.0	4.8	77.9	
TOT OBS													1340
TOT PCT		.3	.2	3.6	49.8	35.0	3.1	.7	1.0	.0	6.0	100.0	

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PERIOD: (PRIMARY) 1911-1977
(OVER-ALL) 1864-1977AREA 0031 MOLLEND
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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NM >4/8) AND
OCCURRENCE OF NM <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NM <5/8 ANY HGT	TOTAL OBS
00603	.0	.5	1.0	16.1	27.8	11.2	2.9	1.3	1.5	2.4	64.9	35.1	205
06609	.0	1.0	1.0	19.8	35.1	18.3	1.5	.5	.0	1.5	78.7	21.3	202
12615	.0	2.6	2.1	18.5	34.9	19.5	2.6	1.0	.0	1.0	82.1	17.9	195
18621	.5	.5	1.9	10.9	17.5	13.3	5.7	.9	.5	.9	52.6	47.4	211
TOT	1	9	12	132	233	126	26	8	4	12	563	250	813
PCT	.1	1.1	1.5	16.2	28.7	15.5	3.2	1.0	.5	1.5	69.2	30.8	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00603	.0	.0	.0	1.3	14.6	84.1	314
06609	.0	.5	.5	1.4	25.5	72.1	427
12615	.0	.0	.0	3.5	23.2	73.3	285
18621	.0	.0	.0	1.7	17.7	80.6	351
TOT	0	2	2	26	283	1044	1379
PCT	.0	.1	.1	1.9	20.6	77.3	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR
CEILING HGT (FEET, NM >4/8) BY HOUR

HOUR (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND 5+	NM <5/8 AND 5+	TOTAL OBS
00603	.0	1.5	19.8	47.0	33.2	202
06609	.0	2.0	23.6	56.8	19.6	199
12615	.0	4.7	24.9	59.1	16.1	193
18621	.5	3.0	15.8	40.1	44.1	202
TOT	1	22	167	403	226	796
PCT	.1	2.8	21.0	50.6	28.4	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
75/79	.0	.0	.2	.0	.2	.4	.0	.0	8	.9
70/74	.0	.0	.0	.2	1.8	.4	.6	.0	27	3.0
65/69	.0	.0	.0	.3	3.2	6.4	5.0	1.9	152	16.7
60/64	.0	.0	.0	.3	8.0	22.9	30.4	11.3	663	72.9
55/59	.0	.0	.0	.0	.2	1.2	2.9	2.2	59	6.5
TOTAL	0	0	2	8	122	285	352	140	909	100.0
PCT	.0	.0	.2	.9	13.4	31.4	38.7	15.4		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
75/79	.1	.0	.0	.5	.1	.0	.0	.0	.0	.1
70/74	.1	.0	.1	1.3	1.2	.1	.0	.1	.0	.1
65/69	.1	*	.8	8.4	5.6	.7	.4	.2	.0	.4
60/64	.2	.1	3.2	38.0	27.4	1.1	.4	.6	.0	2.1
55/59	.0	.0	.1	3.0	3.0	.3	.0	.0	.0	.1
TOTAL	.3	.1	4.2	51.3	37.3	2.2	.8	.9	.0	2.9

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00603	78	70	67	63	59	58	57	63.0	603
06609	79	68	66	62	58	57	56	62.2	1017
12615	76	70	67	63	59	58	56	62.8	549
18621	78	75	72	65	61	59	57	65.8	682
TOT	79	73	69	63	59	58	56	63.3	2851

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-39	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00603	.0	.0	9.5	29.7	45.7	15.1	82	232
06609	.0	1.1	9.5	29.4	39.3	20.6	82	262
12615	.0	.5	8.3	35.0	40.1	16.1	81	217
18621	.0	2.6	24.3	34.0	30.2	8.9	76	235
TOT	0	10	122	302	367	145	80	946

PERIOD: (PRIMARY) 1911-1977
(OVER-ALL) 1864-1977

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TABLE 17

AREA 0031 HOLLEND
16.25 74.0M

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	53 56	57 60	61 64	65 68	69 72	73 76	77 80	TOT	W FOG	WD FOG
14/16	.0	.0	.0	.2	.3	.2	.1	8	.0	.9
11/13	.0	.3	.5	.1	.3	.2	.0	14	.1	1.4
9/10	.0	.0	.7	.1	1.0	.2	.0	18	.0	2.0
7/8	.0	.1	.9	1.0	.4	.3	.0	25	.0	2.7
5	.0	.1	1.3	.8	.3	.1	.0	24	.0	2.6
3	.0	.4	2.4	2.3	.5	.0	.0	52	.2	5.4
4	.0	.7	2.5	.9	.4	.0	.0	41	.1	4.3
2	.0	.5	4.9	1.5	.2	.0	.0	66	.1	7.0
1	.0	1.6	6.2	2.5	.2	.0	.0	97	.4	10.1
0	.0	3.1	8.6	2.7	.2	.0	.0	135	.7	14.0
-1	.1	2.4	11.4	1.5	.0	.0	.0	142	.2	15.2
-2	.0	1.7	9.4	1.1	.0	.0	.0	113	.4	11.8
-3	.0	2.7	7.5	.3	.0	.0	.0	97	.0	10.5
-4	.0	1.8	3.1	.2	.0	.0	.0	48	.1	5.1
-5	.0	1.2	1.2	.2	.0	.0	.0	24	.0	2.6
-6	.0	.7	.9	.0	.0	.0	.0	14	.0	1.5
-7	.0	.3	.1	.0	.0	.0	.0	4	.0	.4
TOTAL	1	164	567	142	37	10	1	922	2.4	90.0
PCT	.1	17.8	61.5	15.4	4.0	1.1	.1	100.0	2.4	97.6

PERIOD: (OVER-ALL) 1963-1977

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.3	.0	.0	.0	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	.0	.0	.0	.3
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.3	.0	.0	.0	.0	.0	.3	.0	.0	.3	.0	.0	.0	.3

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.5	.0	.0	.0	.0	.5	.9	1.4	.3	.0	.0	.0	2.5
1-2	.0	1.0	.5	.0	.0	.0	1.5	.7	12.0	5.3	.0	.0	.0	18.1
3-4	.0	1.5	.2	.0	.0	.0	1.7	.3	8.7	10.6	.3	.0	.0	19.8
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.6	4.1	.1	.0	.0	4.8
7	.0	.0	.0	.0	.0	.0	.0	.0	.1	2.2	1.2	.0	.0	3.5
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.3	.9	.0	.0	2.2
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	3.0	.7	.0	.0	.0	4.6	1.9	22.8	23.8	2.4	.0	.0	50.9

PERIOD: (OVER-ALL) 1963-1977

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AREA 0031 MOLLENDO
16.25 74.0W

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	1.7	3.6	.0	.0	.0	.0	5.4	.1	.6	.0	.0	.0	.0	.7
1-2	1.1	11.2	1.9	.0	.0	.0	14.2	.0	.6	.0	.0	.0	.0	.6
3-4	.0	8.7	4.0	.0	.0	.0	12.7	.0	.7	.1	.0	.0	.0	.7
5-6	.0	.2	3.0	.5	.0	.0	3.6	.0	.0	.1	.0	.0	.0	.1
7	.0	.5	.9	.4	.0	.0	1.8	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.2	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	2.8	24.3	9.8	1.1	.0	.0	38.0	.1	1.9	.1	.0	.0	.0	2.1

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.3	.0	.0	.0	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.5	.0	.0	.0	.0	.5	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.3	.5	.0	.0	.0	.0	.7	.0	.0	.0	.0	.0	.0	.0	95.8

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	9.0	5.9	.3	.0	.0	.0	15.2	
1-2	2.3	24.3	7.8	.0	.0	.0	34.4	
3-4	.3	19.5	14.5	.3	.0	.0	34.6	
5-6	.0	.5	7.0	.5	.0	.0	8.2	
7	.0	.0	3.1	1.6	.0	.0	5.2	
8-9	.0	.0	1.3	1.0	.0	.0	2.3	
10-11	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	11.6	51.2	33.9	3.4	.0	.0	100.0	387

PERIOD: (OVER-ALL) 1949-1977

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	1.9	9.4	14.8	7.0	1.9	.4	.7	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	263	3
6-7	.0	1.4	7.7	9.7	3.0	1.8	.8	.3	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	182	5
8-9	.0	.7	3.7	6.5	3.9	2.9	1.2	.4	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	143	6
10-11	.0	.0	2.1	2.6	.8	1.1	.7	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	55	6
12-13	.0	.0	.6	.3	.1	1.0	.3	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	18	7
14-15	.0	.0	.0	.4	.4	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	9	7
16-17	1.2	.8	2.2	1.7	.7	.4	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	54	4
TOTAL	23	89	225	204	79	58	30	8	8	0	0	0	0	0	0	0	0	0	0	724	5
PCT	3.2	12.3	31.1	28.2	10.9	8.0	4.1	1.1	1.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	

NOVEMBER

PERIOD: (PRIMARY) 1912-1977
(OVER-ALL) 1881-1977

AREA 0031 MDLLEDD
16.25 74.1W

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THOR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
N	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
NE	.0	.0	.0	.0	.0	.0	.0	.0	5.9	.0	.0	.0	23.5	.0	70.6
E	.0	.0	.0	.0	.0	.0	.0	.0	2.0	.0	.0	.0	2.0	.0	95.9
SE	.0	.0	.2	.0	.0	.0	.0	.2	.0	.0	.5	.1	1.1	.0	98.2
S	.0	.0	.7	.0	.0	.0	.0	.7	.0	.0	1.3	.2	2.0	.0	95.8
SW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.5	.0	5.5	.0	94.0
W	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
NW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	8.3	.0	.0	.0	91.7
TOT PCT	.0	.0	.4	.0	.0	.0	.0	.4	.1	.0	1.2	.1	1.7	.0	96.5
TOT OBS:	1037														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THOR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
00003	.0	.0	.4	.0	.0	.0	.0	.4	.4	.0	.7	.0	1.5	.0	97.0
06009	.0	.0	.4	.0	.0	.0	.0	.4	.0	.0	.8	.0	1.9	.0	96.9
12015	.0	.0	.7	.0	.0	.0	.0	.7	.0	.0	2.5	.4	1.1	.0	95.4
18021	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.8	.0	2.4	.0	96.9
TOT PCT	.0	.0	.4	.0	.0	.0	.0	.4	.1	.0	1.2	.1	1.7	.0	96.5
TOT OBS:	1070														

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							48+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)						
	0-3	4-10	11-21	22-33	34-47	00	03					06	09	12	15	18	21	
N	.7	.3	.0	.0	.0	.0	1.0	3.1	.1	.0	.5	3.4	1.7	1.9	.6	.7		
NE	.4	.6	.1	.0	.0	.0	1.2	5.8	*	.0	2.3	3.2	1.5	.0	.2	.0		
E	.8	3.9	.9	*	.0	.0	5.6	7.4	4.5	9.3	4.9	10.7	7.2	4.6	3.6	2.8		
SE	3.8	27.6	12.5	.2	.0	.0	44.0	8.9	41.8	74.1	42.8	41.4	46.4	45.4	43.2	49.5		
S	5.2	19.2	6.1	.2	.0	.0	30.8	7.6	36.8	9.3	30.9	17.8	27.9	35.2	36.6	30.7		
SW	1.8	4.0	.5	.0	.0	.0	6.3	5.7	6.2	7.4	5.2	5.6	5.3	11.1	8.3	6.6		
W	1.4	.6	.0	.0	.0	.0	2.0	3.0	2.7	.0	2.6	1.3	1.5	.0	1.3	3.0		
NW	.6	.7	.0	.0	.0	.0	1.3	4.1	.8	.0	1.4	2.3	1.5	1.9	1.0	1.1		
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
CALM	7.8						7.8	.0	6.9	.0	9.4	14.1	7.2	.0	5.0	5.7		
TOT OBS	636	1606	569	12	0	0	2823		7.2	562	27	572	354	515	27	536	230	
TCT PCT	22.5	54.9	20.2	.4	.0	.0		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	

TABLE 3A

WIND DIR	0-6	WIND SPEED (KNOTS)				41+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)			
		7-16	17-27	28-40	00 03					06 09	12 15	18 21	
N	1.0	.1	.0	.0	.0		1.0	3.1	.1	1.6	1.7	.6	
NE	.8	.3	.0	.0	.0		1.2	5.8	*	2.0	1.4	.2	
E	2.9	2.5	.2	*	.0		5.6	7.4	4.8	7.1	7.1	3.4	
SE	15.4	25.8	2.8	*	.0		44.0	8.9	43.3	42.3	46.3	45.1	
S	15.0	14.7	1.1	.0	.0		30.8	7.6	35.5	25.9	28.2	34.8	
SW	4.4	1.9	*	.0	.0		6.3	5.7	6.3	5.4	5.6	7.8	
W	1.9	.1	.0	.0	.0		2.0	3.0	2.6	2.1	1.4	1.8	
NW	1.1	.2	.0	.0	.0		1.3	4.1	.8	1.8	1.5	1.0	
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	
CALM	7.8						7.8	.0	6.6	11.2	6.8	5.2	
TOT OBS	1422	1283	117	1	0	2823		7.2	589	926	542	766	
TCT PCT	50.4	45.4	4.1	*	.0		100.0		100.0	100.0	100.0	100.0	

PERIOD: (PRIMARY) 1912-1977
(OVER-ALL) 1881-1977

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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	WIND SPEED (KNOTS)					48+	MEAN	PCT FREQ	TOTAL OBS
		1-3	4-10	11-21	22-33	34-47				
0000Z	0.6	16.3	57.9	20.5	.7	.0	.0	.0	7.5	100.0
0600Z	11.2	17.0	54.2	17.4	.2	.0	.0	.0	6.5	100.0
1200Z	6.8	14.9	55.7	22.1	.4	.0	.0	.0	7.4	100.0
1800Z	5.2	12.3	60.2	21.8	.5	.0	.0	.0	7.8	100.0
TOT	22.0	41.6	160.6	59.9	1.2	.0	.0	.0	7.2	100.0
PCT	7.8	14.7	56.9	20.2	.4	.0	.0	.0	100.0	

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & Obscd	TOTAL Obs	MEAN CLOUD COVER
N	.0	.0	.1	.1		7.0
NE	.0	.0	.1	.2		7.1
E	1.3	.3	.7	1.6		5.1
SE	9.2	4.2	12.4	19.2		5.7
S	9.5	5.3	12.6	15.3		5.4
SW	1.1	.2	.8	1.5		5.2
W	.2	.0	.3	.1		5.3
NW	.0	.0	.0	.1		8.0
VAR	.0	.0	.0	.0		.0
CALM	.5	.4	1.1	1.3		5.9
TOT OBS	180	85	232	325	822	5.5
TOT PCT	21.9	10.3	28.2	39.5	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8)
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

000	150	300	600	1000	2000	3500	5000	6500	8000+	NH <5/8	TOTAL
149	299	599	999	1999	3499	4999	6499	7999		ANY HGT	OBS
.0	.0	.0	.0	.1	.1	.0	.0	.0	.0	.0	.0
.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.1
.0	.0	.1	.3	.5	.6	.2	.1	.0	.0	.0	2.0
.2	.2	.4	4.4	11.0	8.6	1.7	.6	.2	.2	.2	17.6
.5	.1	.5	3.7	7.1	6.9	2.0	.7	.1	.5	.5	20.5
.0	.0	.0	.5	.5	.5	.3	.2	.0	.0	.0	1.8
.0	.0	.0	.1	.3	.0	.0	.0	.0	.0	.0	.4
.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
.0	.0	.1	.4	.9	.7	.0	.1	.1	.0	.0	1.0
.5	.3	.9	.77	.169	.145	.34	.14	.4	.5	.357	822
.6	.4	1.1	9.4	20.6	17.6	4.1	1.7	.5	.6	43.4	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE
OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	OR				VSBY (NM)				OR >0
	>10	>5	>2	>1	>1/2	>1/4	>50YD		
OR >6500	.9	1.1	1.2	1.2	1.2	1.2	1.2	1.2	
OR >5000	2.5	2.8	3.0	3.0	3.0	3.0	3.0	3.0	
OR >3500	6.3	6.8	7.0	7.0	7.0	7.0	7.0	7.0	
OR >2000	21.6	24.3	24.7	24.7	24.7	24.7	24.7	24.7	
OR >1000	39.2	45.1	45.5	45.5	45.5	45.5	45.5	45.5	
OR >600	46.4	53.7	54.4	54.7	54.7	54.7	54.7	54.7	
OR >300	47.1	54.8	55.5	55.7	55.7	55.7	55.7	55.7	
OR >150	47.1	55.0	55.8	56.1	56.1	56.1	56.1	56.1	
OR >0	47.3	55.4	56.2	56.6	56.6	56.6	56.7	56.7	
TOTAL	401	469	476	479	479	479	480	480	

TOTAL NUMBER OF OBS: 847

PCT FREQ NH <5/8: 43.3

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	OBSCD	TOTAL OBS
13.2	8.4	9.3	6.5	5.6	4.1	5.6	12.7	34.3	.3	918

PERIOD: (PRIMARY) 1912-1977
(OVER-ALL) 1881-1977

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AREA 0091, MOLLEND
10.25 74.1W

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1	.1	.2
	TOT %	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1	.1	.2
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.1
	TOT %	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.1
1<2	PCP	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.1
	NO PCP	.0	.0	.0	.0	.1	.1	.0	.0	.0	.0	.0	.2
	TOT %	.0	.0	.0	.0	.2	.1	.0	.0	.0	.0	.0	.3
2<5	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.1	.6	.9	.1	.0	.0	.0	.3	1.9	1.9
	TOT %	.0	.0	.1	.6	.9	.1	.0	.0	.0	.3	1.9	1.9
5<10	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.4	.3	.2	5.4	6.2	.4	.4	.3	.0	1.4	15.0	15.0
	TOT %	.4	.3	.2	5.4	6.2	.4	.4	.3	.0	1.4	15.0	15.0
10+	PCP	.0	.0	.0	.1	.2	.0	.0	.0	.0	.0	.3	.3
	NO PCP	.1	.1	3.3	35.8	35.2	3.8	.9	.1	.0	2.8	82.2	82.2
	TOT %	.1	.1	3.3	35.9	35.4	3.8	.9	.1	.0	2.8	82.5	82.5
TOT OBS													1096
TOT PCT		.5	.4	3.5	41.9	42.8	4.4	1.3	.5	.0	4.6	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1	.1
	4-10	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.1	.1
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1	.1	.2
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1	.1
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1	.1
1<2	0-3	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.1
	4-10	.0	.0	.0	.0	.1	.1	.0	.0	.0	.0	.1	.1
	11-21	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.1	.1
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.1	.1	.1	.0	.0	.0	.0	.3	.3
2<5	0-3	.0	.0	.0	.0	.2	.1	.0	.0	.0	.4	.6	.6
	4-10	.0	.0	.1	.4	.6	.0	.0	.0	.0	.0	1.1	1.1
	11-21	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.1	.1
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.1	.5	.8	.1	.0	.0	.0	.4	1.8	1.8
5<10	0-3	.2	.2	.2	.4	.6	.2	.4	.1	.0	1.8	4.1	4.1
	4-10	.2	.3	.4	3.6	3.6	.5	.1	.3	.0	.0	9.2	9.2
	11-21	.0	.0	.0	1.6	1.6	.0	.0	.0	.0	.0	3.0	3.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.5	.5	.6	5.6	5.9	.7	.5	.3	.0	1.8	16.3	16.3
10+	0-3	.0	.0	.4	1.8	4.8	1.2	.5	.0	.0	4.7	13.4	13.4
	4-10	.1	.2	2.3	19.3	19.9	3.2	.4	.2	.0	.0	45.6	45.6
	11-21	.0	.0	.8	13.2	7.5	.2	.0	.0	.0	.0	21.7	21.7
	22+	.0	.0	.0	.1	.4	.0	.0	.0	.0	.0	.6	.6
	TOT %	.1	.2	3.5	24.5	32.5	4.7	.9	.2	.0	4.7	81.3	81.3
TOT OBS													1385
TOT PCT		.6	.7	4.2	40.7	39.4	5.5	1.4	.6	.0	6.9	100.0	

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PERIOD: (PRIMARY) 1912-1977
(OVER-ALL) 1881-1977

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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET; NH >4/8) AND
OCCURRENCE OF NH <5/8 BY HOUR

HOURL (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00003	.9	.9	.4	7.0	18.1	14.5	4.4	.4	.4	.0	47.1	52.9	227
06009	.5	.0	2.1	10.4	19.3	24.5	4.2	1.0	.5	1.6	64.1	35.9	192
12015	.9	.4	1.3	11.1	29.1	22.6	3.4	2.1	.9	.0	71.8	28.2	234
18021	.0	.0	.5	7.2	14.0	7.7	3.6	3.2	.0	1.4	37.4	62.6	222
TOT PCT	5 .6	3 .3	9 1.0	78 8.9	177 20.2	150 17.1	34 3.9	15 1.7	4 .5	6 .7	481 55.0	394 45.0	875 100.0

TABLE 11

PERCENT FREQUENCY VSBY (NH) BY HOUR

HOURL (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.0	.0	.0	1.5	17.0	81.5	335
06009	.0	.0	.0	1.5	19.1	79.5	409
12015	.6	.0	.6	2.4	19.0	77.4	332
18021	.3	.3	.6	1.8	10.8	86.3	342
TOT PCT	3 .2	4 .1	4 .3	25 1.8	235 16.6	1150 81.1	1418 100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NH) AND/OR
CEILING HGT (FEET; NH >4/8) BY HOUR

HOURL (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND 5+	NH <5/8 AND 5+	TOTAL OBS
00003	.9	2.3	10.7	39.5	49.8	215
06009	.5	2.6	14.2	51.1	34.7	190
12015	.9	3.0	16.0	58.4	25.5	231
18021	.0	.9	10.0	30.8	59.2	211
TOT PCT	5 .6	19 2.2	108 12.8	382 45.1	357 42.1	847 100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
80/84	.0	.0	.0	.0	.1	.0	.0	.0	1	.1
75/79	.0	.0	.0	.1	.3	.3	.0	.0	7	.8
70/74	.0	.0	.0	.7	2.5	2.1	.9	.2	58	6.3
65/69	.0	.0	.0	.5	6.2	17.8	18.2	8.4	469	51.1
60/64	.0	.0	.0	.1	2.3	8.0	16.0	14.6	376	41.0
55/59	.0	.0	.0	.0	.0	.1	.1	.5	7	.8
TOTAL	0	0	0	13	105	259	324	218	918	100.0
PCT	.0	.0	.0	1.4	11.4	28.2	35.2	23.7		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.0	.0	.0	.1	.0	.0	.0	.0	.0	.0
.0	.0	.0	.4	.3	.0	.0	.0	.0	.0
.0	.0	.1	2.6	2.9	.5	.1	.1	.0	.1
.2	.4	1.8	21.5	21.3	2.0	.7	.2	.0	2.8
.4	.0	1.5	20.5	14.9	1.7	.5	.0	.0	1.4
.0	.0	.0	.2	.5	.0	.0	.0	.0	.0
.7	.4	3.3	45.5	39.9	4.1	1.4	.4	.0	4.4

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOURL (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	79	73	70	65	61	59	56	65.1	590
06009	73	70	68	64	60	58	56	64.2	939
12015	81	73	70	65	61	59	57	65.0	546
18021	79	78	75	68	63	61	60	68.2	646
TOT	81	75	72	65	61	59	56	65.5	2721

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOURL (GMT)	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	.4	4.6	30.0	37.9	27.1	83	240		
06009	.0	.4	9.7	22.7	38.2	29.0	83	238		
12015	.0	.4	12.4	26.6	35.7	24.9	81	241		
18021	.0	4.4	19.7	35.4	28.4	12.2	77	229		
TOT	0	13	109	271	333	222	81	948		

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TABLE 17

AREA 0031 MOLLEND
10.25 74.1WPCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	57 60	61 64	65 68	69 72	73 76	77 80	TOT	H FOG	NO FOG
14/16	.0	.0	.0	.2	.1	.0	3	.0	.3
11/13	.0	.0	.0	.4	.3	.6	13	.0	1.4
9/10	.0	.1	.1	.6	.7	.1	16	.0	1.7
7/8	.0	.3	.8	1.5	.9	.0	30	.0	3.1
6	.0	.8	.7	.7	.1	.0	23	.1	2.3
5	.0	.9	2.0	.6	.1	.0	35	.1	3.6
4	.0	1.0	2.3	1.3	.0	.0	44	.0	4.6
3	.3	2.2	3.3	1.4	.2	.0	70	.3	7.0
2	.5	5.6	4.8	.9	.0	.0	113	.2	11.6
1	.7	5.8	7.0	.8	.0	.0	137	.1	14.3
0	.6	7.5	8.9	.8	.0	.0	170	.1	17.7
-1	.3	6.1	6.7	.6	.0	.0	131	.2	13.5
-2	.3	3.6	4.0	.1	.0	.0	76	.0	8.0
-3	.3	2.8	1.5	.1	.0	.0	45	.0	4.7
-4	.2	1.3	1.0	.0	.0	.0	24	.0	2.5
-5	.2	.7	.7	.0	.0	.0	16	.0	1.7
-6	.0	.4	.0	.0	.0	.0	4	.0	.4
-7/-8	.0	.2	.1	.0	.0	.0	3	.0	.3
TOTAL	34	375	420	97	20	7	953	1.2	98.8
PCT	3.6	39.3	44.1	10.2	2.1	.7	100.0	1.2	98.8

PERIOD: (OVER-ALL) 1963-1977

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	N 22-33	34-47	48+	PCT	1-3	4-10	11-21	NE 22-33	34-47	48+	PCT
41	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.2	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.1
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.2	.0	.0	.0	.0	.2	.0	.0	.1	.0	.0	.0	.1

HGT	1-3	4-10	11-21	E 22-33	34-47	48+	PCT	1-3	4-10	11-21	SE 22-33	34-47	48+	PCT
41	.2	.7	.0	.0	.0	.0	.9	.7	2.0	.0	.0	.0	.0	2.7
1-2	.2	1.6	.2	.0	.0	.0	2.0	.4	14.3	5.0	.0	.0	.0	19.6
3-4	.0	.8	.2	.0	.0	.0	1.0	.0	7.9	11.0	.0	.0	.0	18.9
5-6	.0	.0	.2	.0	.0	.0	.2	.0	1.0	4.6	.0	.0	.0	5.6
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.7	.0	.0	.0	1.7
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.2	.1	.0	.0	.0	.4
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.2
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.4	3.1	.6	.0	.0	.0	4.0	1.1	29.4	22.7	.0	.0	.0	49.1

PERIOD: (OVER-ALL) 1963-1977

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TABLE 18 (CONT)

PCT FREQ OF MINU SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	1.4	1.2	.2	.0	.0	.0	2.8	.1	.3	.1	.0	.0	.0	.4
1-2	1.2	14.4	3.4	.0	.0	.0	18.9	.5	1.6	.2	.0	.0	.0	2.3
3-4	.0	0.8	5.2	.0	.0	.0	12.0	.0	.4	.1	.0	.0	.0	.4
5-6	.0	.2	2.6	.0	.0	.0	2.9	.0	.2	.1	.0	.0	.0	.3
7	.0	.5	1.2	.0	.0	.0	1.7	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.4	.0	.0	.0	.4	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.2	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	2.6	23.1	13.3	.0	.0	.0	38.9	.6	2.6	.4	.0	.0	.0	3.5

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	.2	.0	.0	.0	.0	.2	.0	.2	.0	.0	.0	.0	.2	
1-2	.0	.4	.0	.0	.0	.0	.4	.0	.0	.0	.0	.0	.0	.0	
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.0	.7	.0	.0	.0	.0	.7	.0	.2	.0	.0	.0	.0	.2	96.8

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT
<1	6.6	5.9	.2	.0	.0	.0	12.7	GBS
1-2	3.1	31.5	8.5	.0	.0	.0	43.1	
3-4	.0	15.3	15.8	.0	.0	.0	31.1	
5-6	.0	1.4	7.3	.0	.0	.0	8.7	
7	.0	.5	2.8	.0	.0	.0	3.3	
8-9	.0	.2	.5	.0	.0	.0	.7	
10-11	.0	.0	.5	.0	.0	.0	.5	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	9.6	54.8	35.5	.0	.0	.0	100.0	425

PERIOD: (OVER-ALL) 1949-1977

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	1.3	12.5	19.5	5.4	1.6	.7	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	313
6-7	.0	1.8	7.5	10.0	5.6	1.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	200
8-9	.0	.0	4.3	4.2	4.2	2.4	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	117
10-11	.0	.5	2.8	2.4	.9	.7	.4	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	60
12-13	.0	.0	.3	.4	.5	.3	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	14
13-19	.0	.0	.0	.0	.1	.1	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	5
INDET	1.8	1.0	1.4	2.1	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	53
TOTAL	24	121	273	186	103	41	13	2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	763
PCT	3.1	15.9	35.8	24.4	13.5	5.4	1.7	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0

DECEMBER

PERIOD: (PRIMARY) 1911-1977
(OVER-ALL) 1854-1977

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TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
N	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
E	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.4	.0	97.6
SE	.2	.0	.2	.0	.0	.0	.0	.5	.1	.7	2.0	.2	1.6	.0	95.0
S	.0	.0	.0	.0	.0	.0	.0	.0	.4	.0	.9	.3	1.8	.0	96.6
SW	.0	.0	.0	.0	.0	.0	.0	.0	.7	.0	.0	.0	2.9	.0	96.4
W	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
NW	.0	.0	.0	.0	.0	.0	.0	.0	20.0	.0	.0	.0	.0	.0	80.0
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	7.4	.0	92.6
TOT PCT	.1	.0	.1	.0	.0	.0	.0	.2	.3	.3	1.3	.2	2.0	.0	95.6
TOT OBS:	927														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
00003	.0	.0	.0	.0	.0	.0	.0	.0	.9	.0	.9	.0	1.4	.0	96.8
06009	.0	.0	.4	.0	.0	.0	.0	.4	.0	.9	.9	.0	1.3	.0	96.4
12015	.0	.0	.0	.0	.0	.0	.0	.0	.4	.4	2.4	.8	3.6	.0	92.3
18021	.4	.0	.0	.0	.0	.0	.0	.4	.0	.0	.8	.0	2.3	.0	96.5
TOT PCT	.1	.0	.1	.0	.0	.0	.0	.2	.3	.3	1.3	.2	2.2	.0	95.5
TOT OBS:	951														

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	48+					00	03	06	09	12	15	18	21
N	.4	.4	*	.0	.0	.0		.8	4.2	1.2	.0	.8	1.3	1.2	.0	.3	.0	
NE	.4	.7	*	.0	.0	.0		1.1	5.3	.8	.0	2.3	2.0	1.0	.0	.4	.2	
E	2.1	4.1	.7	.0	.0	.0		6.8	6.0	4.5	8.3	9.3	13.4	8.6	9.5	3.2	1.7	
SE	6.1	30.1	8.1	.2	*	.0		44.5	7.7	41.6	56.3	43.2	45.1	46.4	57.1	45.3	45.0	
S	5.0	19.1	4.9	*	.0	.0		29.1	7.2	32.7	35.4	25.0	15.9	27.8	28.6	36.7	33.6	
SW	1.5	3.6	.2	.0	.0	.0		5.2	5.3	4.4	.0	4.7	5.3	3.9	4.8	6.0	8.9	
W	.6	.8	.0	.0	.0	.0		1.4	3.9	1.6	.0	1.6	1.9	1.0	.0	.8	1.8	
NW	.4	.7	.0	*	.0	.0		1.2	5.3	1.7	.0	1.3	1.8	1.0	.0	.6	.6	
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	10.0							10.0	.0	11.4	.0	11.9	13.4	9.2	.0	6.6	8.1	
TOT OBS	751	1693	395	7	1	0	2847		6.4	544	12	539	366	523	21	570	272	
TOT PCT	26.4	59.5	13.9	.2	*	.0		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)					TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)			
	0-6	7-16	17-27	28-40	41+				00	06	12	18
N	.7	.1	*	.0	.0	.0	.8	4.2	1.2	1.0	1.1	.2
NE	.9	.1	.1	.0	.0	.0	1.1	5.3	.8	2.2	1.0	.3
E	4.4	2.3	.1	.0	.0	.0	6.8	6.0	4.6	10.9	8.6	2.7
SE	20.9	21.9	1.6	.1	.0	.0	44.5	7.7	41.9	44.0	46.8	45.2
S	15.3	12.9	.9	.0	.0	.0	29.1	7.2	32.8	21.4	27.8	35.7
SW	3.9	1.3	.0	.0	.0	.0	5.2	5.3	4.3	4.9	4.0	6.9
W	1.3	.1	.0	.0	.0	.0	1.4	3.9	1.5	1.7	1.0	1.2
NW	.9	.2	.0	*	.0	.0	1.2	5.3	1.7	1.5	1.0	.6
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	10.0						10.0	.0	11.2	12.3	8.8	7.2
TOT OBS	1662	1105	77	3	0	2847		6.4	536	905	544	842
TOT PCT	58.4	38.8	2.7	.1	.0		100.0		100.0	100.0	100.0	100.0

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PERIOD: (PRIMARY) 1911-1977
(OVER-ALL) 1854-1977

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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)			48+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47				
00003	11.2	15.1	57.4	16.0	.2	.2	.0	6.6	100.0	556
06009	12.5	17.8	58.8	10.7	.2	.0	.0	5.9	100.0	905
12015	8.8	16.9	60.1	13.8	.4	.0	.0	6.5	100.0	544
18021	7.2	15.4	61.2	15.9	.2	.0	.0	6.8	100.0	842
TOT	284	467	1693	345	7	1	0	6.4		2847
PCT	10.0	16.4	59.5	13.9	.2	.0	.0		100.0	

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	.0	.0	.0	.2		8.0
NE	.0	.0	.0	.3		7.3
E	1.0	.3	.9	.4		4.2
SE	10.7	7.7	17.2	11.8		5.1
S	7.6	8.3	13.1	10.0		5.0
SW	1.0	.3	1.1	1.5		5.6
W	.0	.0	.2	.0		5.0
NW	.0	.0	.5	.3		6.8
VAR	.0	.0	.0	.0		.0
CALM	1.5	1.1	.6	2.6		5.0
TOT OBS	141	114	217	175	647	5.1
TOT PCT	21.8	17.6	33.5	27.0	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NM >4/8)
AND OCCURRENCE OF NM <5/8 BY WIND DIRECTION

	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH <5/8 ANY HGT	TOTAL OBS
N	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0
NE	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.2
E	.0	.1	.1	.0	.1	.2	.3	.0	.0	.2	1.5	
SE	.0	.3	.7	3.9	8.1	4.7	2.3	.0	.5	1.0	25.9	
S	.0	.2	.1	3.1	7.8	3.1	1.2	.2	.3	.8	22.4	
SW	.0	.2	.2	1.4	.3	.0	.0	.0	.1	1.7		
W	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	
NW	.0	.0	.2	.2	.2	.0	.2	.0	.0	.0	.2	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.0	.0	.9	1.2	.0	.2	.2	.3	2.9		
TOT OBS	0	4	8	53	122	54	27	2	7	15	355	647
TOT PCT	.0	.6	1.2	8.2	18.9	8.3	4.2	.3	1.1	2.3	54.9	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE
OF CEILING HEIGHT (NM >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)							
	= OR >10	= OR >5	= OR >2	= OR >1	= OR >1/2	= OR >1/4	= OR >50YD	= OR >0
= OR >6500	2.9	3.2	3.5	3.5	3.5	3.5	3.5	3.5
= OR >5000	3.2	3.5	3.8	3.8	3.8	3.8	3.8	3.8
= OR >3500	6.8	7.8	8.1	8.1	8.1	8.1	8.1	8.1
= OR >2000	14.6	16.1	16.4	16.4	16.4	16.4	16.5	16.5
= OR >1000	30.7	34.9	35.2	35.2	35.2	35.2	35.3	35.3
= OR >600	36.7	42.7	43.3	43.3	43.3	43.3	43.5	43.5
= OR >300	37.4	43.9	44.5	44.5	44.5	44.5	44.7	44.7
= OR >150	37.6	44.5	45.1	45.1	45.1	45.1	45.3	45.3
= OR >0	37.6	44.5	45.1	45.1	45.1	45.1	45.3	45.3
TOTAL	250	296	300	300	300	300	301	301

TOTAL NUMBER OF OBS 665

PCT FREQ NH <5/8 54.7

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

	0	1	2	3	4	5	6	7	8	OBSCD	TOTAL OBS
	14.6	12.8	11.4	7.2	7.6	6.1	6.7	10.1	23.4	.0	734

PERIOD: (PRIMARY) 1911-1977
(OVER-ALL) 1854-1977

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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.2	.1	.0	.0	.0	.0	.0	.3	.3
	TOT %	.0	.0	.0	.2	.1	.0	.0	.0	.0	.0	.3	.3
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1<2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2<5	PCP	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.1	.1
	NO PCP	.0	.1	.0	.8	.2	.0	.0	.0	.0	.1	1.2	1.3
	TOT %	.0	.1	.0	.9	.2	.0	.0	.0	.0	.1	1.3	1.3
5<10	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.2	.3	1.1	7.7	4.8	.6	.1	.0	.0	1.6	16.4	16.4
	TOT %	.2	.3	1.1	7.7	4.8	.6	.1	.0	.0	1.6	16.4	16.4
10+	PCP	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.1	.1
	NO PCP	.2	.1	2.3	37.4	33.9	3.1	.1	.5	.0	4.1	81.9	81.9
	TOT %	.2	.1	2.3	37.6	33.9	3.1	.1	.5	.0	4.1	82.0	82.0
TOT OBS													926
TOT PCT		.4	.6	3.4	46.4	39.0	3.7	.2	.5	.0	5.8	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.1	.1	.0	.0	.0	.0	.0	.2	.2
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.2	.1	.0	.0	.0	.0	.0	.2	.2
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2<5	0-3	.0	.0	.0	.3	.0	.0	.0	.0	.0	.2	.5	.5
	4-10	.0	.1	.0	.5	.2	.0	.0	.0	.0	.0	.7	.7
	11-21	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.2	.2
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.1	.0	.9	.2	.0	.0	.0	.0	.2	1.4	1.4
5<10	0-3	.0	.2	.4	1.0	.5	.2	.0	.0	.0	1.7	3.9	3.9
	4-10	.1	.2	.6	6.0	3.4	.4	.1	.0	.0	.0	10.9	10.9
	11-21	.0	.0	.2	1.2	.4	.0	.0	.0	.0	.0	1.8	1.8
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.1	.4	1.2	8.2	4.3	.6	.1	.0	.0	1.7	16.5	16.5
10+	0-3	.0	.1	.8	4.1	3.2	.6	.4	.2	.0	5.7	15.2	15.2
	4-10	.2	.2	2.4	21.6	18.6	2.6	.3	.7	.0	.0	46.9	46.9
	11-21	.0	.0	.3	10.6	8.4	.1	.0	.0	.0	.0	19.4	19.4
	22+	.0	.0	.0	.3	.0	.0	.0	.1	.0	.0	.4	.4
	TOT %	.2	.3	3.5	36.6	30.3	3.3	.9	1.0	.0	5.7	81.9	81.9
TOT OBS													1257
TOT PCT		.3	.8	4.7	45.9	34.8	4.0	1.0	1.1	.0	7.6	100.0	

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PERIOD: (PRIMARY) 1911-1977
(OVER-ALL) 1854-1977AREA 0031 MOLLEND
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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET) NH >4/8) AND
OCCURRENCE OF NH <3/8 BY HOUR

HRUR (GMT)	000 149	150 299	300 599	600 899	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL DBS
00603	.0	.6	1.8	6.1	23.0	4.2	3.6	.0	.6	2.4	42.4	57.6	165
06609	.0	.0	.0	7.6	20.1	7.6	6.3	.0	2.1	4.9	48.6	51.4	144
12615	.0	1.0	2.6	13.4	22.2	11.9	5.2	1.0	1.0	.5	58.8	41.2	194
18621	.0	.5	.0	3.6	7.8	7.8	2.1	.0	1.0	1.6	24.5	75.5	192
TOT	0	4	8	54	125	56	29	2	8	15	301	394	695
PCT	.0	.6	1.2	7.8	18.0	8.1	4.2	.3	1.2	2.2	43.3	56.7	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HRUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL DBS
00603	.0	.0	.0	1.1	13.8	85.2	283
06609	.3	.0	.0	1.1	20.8	77.8	351
12615	.3	.0	.0	2.0	19.5	78.1	297
18621	.3	.0	.0	1.1	12.9	85.7	350
TOT	3	0	0	17	215	1046	1281
PCT	.2	.0	.0	1.3	16.8	81.7	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR
CEILING HGT (FEET) NH >4/8) BY HOUR

HRUR (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND 5+	NH <5/8 AND 5+	TOTAL DBS
00603	.0	2.5	9.3	34.8	55.9	161
06609	.0	.0	9.8	44.4	45.9	133
12615	.0	3.8	19.4	43.0	37.6	186
18621	.0	1.1	5.9	20.0	74.1	185
TOT	0	13	75	232	358	665
PCT	.0	2.0	11.3	34.9	53.8	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL DBS	PCT FREQ
80/84	.0	.0	.0	.0	.1	.0	.0	.0	1	.1
75/79	.0	.0	.0	.5	1.9	.9	.3	.4	31	3.9
70/74	.0	.0	.0	.5	3.5	14.8	8.6	3.5	245	31.1
65/69	.0	.0	.0	.1	3.8	12.4	21.2	17.9	437	55.4
60/64	.0	.0	.0	.0	.1	.3	3.0	6.1	75	9.5
TOTAL	0	0	0	9	75	224	261	220	789	100.0
PCT	.0	.0	.0	1.1	9.5	28.4	33.1	27.9		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
80	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0
75	.0	.0	.2	1.8	1.2	.3	.0	.0	.0	.5
70	.0	.0	.9	12.8	14.6	1.1	.0	.3	.0	1.4
65	.3	.4	2.4	26.6	20.1	1.9	.1	.4	.0	3.3
60	.0	.0	.3	5.1	2.8	.5	.1	.0	.0	.6
TOT	.3	.4	3.7	46.3	38.8	3.7	.2	.6	.0	5.8

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HRUR (GMT)	MAX	99%	95%	90%	5%	1%	MIN	MEAN	TOTAL DBS
00603	82	75	73	68	63	61	59	68.0	554
06609	74	72	71	67	62	60	57	68.8	925
12615	81	76	73	68	64	61	60	68.1	543
18621	83	80	77	71	64	62	58	70.8	696
TOT	83	78	74	68	63	61	57	68.3	2718

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HRUR (GMT)	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	MEAN	TOTAL DBS
00603	.0	.5	5.2	32.6	34.2	27.5	83	193		
06609	.0	.0	6.0	22.4	37.3	34.3	84	201		
12615	.0	.5	8.7	24.3	29.6	36.9	83	206		
18621	.0	3.3	17.2	32.6	33.0	14.0	78	215		
TOT	0	9	77	228	273	228	82	815		

PERIOD: (PRIMARY) 1911-1977
(OVER-ALL) 1854-1977

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TABLE 17

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PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	57 60	61 64	65 68	69 72	73 76	77 80	81 84	TOT	N FOG	NO FOG
14/16	.0	.0	.0	.1	.0	.0	.1	2	.0	.2
11/13	.0	.0	.0	.4	.2	.6	.0	10	.0	1.2
9/10	.0	.0	.4	1.1	.7	.6	.0	23	.1	2.6
7/8	.0	.1	1.1	1.3	.9	.2	.1	32	.1	3.7
6	.0	.1	1.1	1.4	.6	.7	.0	33	.1	3.8
5	.0	.1	1.8	2.0	.8	.1	.0	41	.0	4.8
4	.0	1.2	2.5	2.8	.9	.1	.0	64	.1	7.4
3	.1	.8	3.9	2.4	.8	.0	.0	68	.1	7.9
2	.0	2.7	5.3	4.3	1.2	.1	.0	115	.1	13.5
1	.1	.7	4.5	5.2	.1	.0	.0	90	.5	10.2
0	.0	2.0	6.0	6.7	1.2	.0	.1	153	.1	17.9
-1	.0	.4	5.4	3.2	.0	.0	.0	76	.0	9.0
-2	.1	.7	3.9	2.1	.1	.0	.0	59	.0	7.0
-3	.0	.4	1.7	2.0	.0	.0	.0	34	.0	4.0
-4	.1	.5	1.7	1.2	.1	.0	.0	30	.0	3.5
-5	.0	.1	.8	.0	.0	.0	.0	8	.0	.9
-6	.0	.1	.6	.1	.0	.0	.0	7	.0	.8
-7/-8	.0	.1	.1	.0	.0	.0	.0	2	.0	.2
TOTAL	4	85	361	307	66	21	3	847	1.3	98.7
PCT	.5	10.0	42.6	36.2	7.8	2.5	.4	100.0	1.3	98.7

PERIOD: (OVER-ALL) 1963-1977

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.2	.3	.0	.0	.0	.0	.5	2.7	2.5	.0	.0	.0	.0	5.2
1-2	.3	1.6	.0	.0	.0	.0	1.9	1.3	15.1	7.0	.0	.0	.0	23.4
3-4	.0	.0	.3	.0	.0	.0	.3	.1	8.1	10.1	.0	.0	.0	18.3
5-6	.0	.0	.0	.0	.0	.0	.0	.0	1.6	3.1	.3	.0	.0	4.9
7	.0	.0	.0	.0	.0	.0	.0	.0	.4	.3	.0	.0	.0	.7
8-9	.0	.0	.3	.0	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	.0	.3
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.5	1.9	.6	.0	.0	.0	3.1	4.0	27.7	20.3	.3	.3	.0	52.7

PERIOD: (OVER-ALL) 1963-1977

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TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	1.2	3.1	.3	.0	.0	.0	4.6	.0	.0	.0	.0	.0	.0	.0
1-2	.0	11.3	3.1	.0	.0	.0	14.3	.3	.8	.0	.0	.0	.0	1.1
3-4	.5	5.3	6.1	.0	.0	.0	12.0	.0	1.6	.1	.0	.0	.0	1.7
5-6	.0	.9	3.8	.0	.0	.0	4.8	.0	.0	.0	.0	.0	.0	.0
7	.0	.5	.0	.0	.0	.0	.5	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.7	21.2	13.3	.0	.0	.0	36.3	.3	2.4	.1	.0	.0	.0	2.8

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.3	.0	.0	.0	.0	.3	.0	.3	.0	.0	.0	.0	.3	.3
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.3	.0	.3	.0	.0	.6	.6
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.3	.0	.0	.0	.0	.3	.0	.6	.0	.3	.0	.0	.9	96.2

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	10.0	5.7	.3	.0	.0	.0	16.0	
1-2	2.4	28.7	9.7	.0	.0	.0	40.8	
3-4	.6	14.6	16.0	.3	.0	.0	31.7	
5-6	.3	2.4	6.6	.3	.0	.0	9.7	
7	.0	.9	.3	.0	.0	.0	1.2	
8-9	.0	.0	.3	.0	.0	.0	.3	
10-11	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.3	.0	.3	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	13.3	52.6	33.2	.6	.3	.0	100.0	331

PERIOD: (OVER-ALL) 1949-1977

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	3.6	8.1	19.0	4.6	1.8	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	227
6-7	.0	2.6	10.4	9.9	5.3	1.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	178
8-9	.0	1.2	3.3	6.3	2.6	1.2	.2	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	90
10-11	.0	1.5	.5	3.3	1.7	1.2	.5	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	53
12-13	.0	.0	.3	.5	.3	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	9
>13	.0	.0	.0	.3	.2	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	4
INDET	2.3	1.7	2.6	.2	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	43
TOTAL	36	91	219	152	74	25	5	0	2	0	0	0	0	0	0	0	0	0	0	0	604
PCT	6.0	15.1	36.3	25.2	12.3	4.1	.8	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0

PERIOD: (PRIMARY) 1911-1978
(OVER-ALL) 1854-1978

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TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHMR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THOR LTNG	FOG NO PCPN	FOG NO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST SNOW	NO SIG WEA
N	4.2	1.1	.0	.0	.0	.0	.0	5.3	.0	.8	.0	.0	6.3	.0	87.6
NE	1.2	.0	.0	.0	.0	.0	.0	1.2	.9	.0	2.8	.0	6.3	.0	89.3
E	.1	.1	.5	.0	.0	.0	.0	.8	.3	.2	1.2	.3	4.0	.0	93.2
SE	.2	.1	.5	.0	.0	.0	.0	.9	.6	.1	1.5	.1	2.5	*	94.2
S	.1	.1	.5	.0	.0	.0	.0	.8	.6	.1	2.0	.1	2.9	.0	93.5
SW	.1	.0	1.5	.0	.0	.0	.0	1.7	.5	.0	2.0	.3	2.2	.0	93.3
W	.0	.0	2.1	.0	.0	.0	.0	2.1	2.6	.0	2.5	.0	3.5	.0	89.2
NW	.7	.3	2.2	.0	.0	.0	.0	3.2	2.7	.0	1.8	.0	5.7	.0	86.6
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.5	.0	.0	.0	.0	.5	.0	1.1	7.7	.2	6.2	.0	84.2
TOT PCT	.2	.1	.6	.0	.0	.0	.0	.9	.6	.2	1.9	.1	2.9	*	93.4
TOT OBS: 12901															

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG NO PCPN	FOG NO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST BLWG SNOW	NO SIG WEA
00003	.1	.1	.6	.0	.0	.0	.0	.8	.6	.1	1.6	.0	2.4	.0	94.5
06009	.2	.2	.8	.0	.0	.0	.0	1.2	.6	.5	1.4	.1	2.1	*	94.2
12015	.3	.2	.6	.0	.0	.0	.0	1.2	.9	.1	3.3	.3	2.9	.1	91.3
18021	*	*	.3	.0	.0	.0	.0	.4	.2	*	1.9	.1	4.3	.0	93.1
TOT PCT	.2	.1	.6	.0	.0	.0	.0	.9	.6	.2	2.0	.1	2.9	*	93.3
TOT OBS: 13182															

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							48+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)						
	0-3	4-10	11-21	22-33	34-47	00	03					06	09	12	15	18	21	
N	.5	.5	*	*	.0	.0	1.1	4.2	.7	1.3	1.0	2.8	1.2	.6	.6	.6		
NE	.4	.8	.1	*	.0	.0	1.3	5.6	.7	1.3	1.5	2.5	1.7	1.0	.7	.5		
E	1.5	5.4	1.6	.1	*	.0	8.6	7.6	5.9	4.6	9.0	14.8	11.0	8.9	6.5	5.4		
SE	4.2	24.2	16.6	1.2	*	.0	50.3	9.6	48.7	56.0	49.9	44.2	52.8	57.2	52.8	51.5		
S	3.9	15.0	5.6	.2	*	.0	24.7	8.0	30.0	26.2	23.4	15.4	22.1	22.2	28.5	26.1		
SW	1.1	7.6	.3	*	*	.0	4.0	5.8	4.3	6.1	3.5	3.9	2.8	5.4	4.3	6.0		
W	.7	.7	*	.0	.0	.0	1.4	4.1	1.3	.5	1.6	1.6	.9	1.0	1.1	2.2		
NW	.5	.6	*	*	.0	.0	1.1	4.4	.9	.0	1.4	2.2	.8	.5	.7	.9		
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
CALM	7.5							7.5	.0	7.5	4.1	8.7	12.5	6.7	3.2	4.7		
TOT OBS							35597		7.9	6993	260	7071	4381	6446	347	6928		
TOT PCT	20.4	53.7	24.3	1.6	*	.0		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0		

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)					TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)				
	0-6	7-16	17-27	28-40	41+				00 03	06 09	12 15	18 21	
N	1.0	.1	*	*	.0	1.1	4.2	.7	1.7	1.2	.6		
NE	.9	.3	*	.0	.0	1.3	5.6	.7	1.9	1.7	.7		
E	4.4	3.7	.5	*	.0	8.6	7.6	5.8	11.2	10.9	6.2		
SE	16.1	28.7	5.3	.2	*	50.3	9.6	49.0	47.7	53.0	52.4		
S	11.6	11.8	1.3	*	*	24.7	8.0	29.9	20.4	22.2	27.8		
SW	2.8	1.1	.1	*	.0	4.0	5.8	4.4	3.7	2.9	4.8		
W	1.2	.1	*	.0	.0	1.4	4.1	1.3	1.6	.9	1.4		
NW	.9	.2	*	*	.0	1.1	4.4	.9	1.7	.7	.8		
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
CALM	7.5					7.5	.0	7.4	10.2	6.5	5.4		
TOT OBS						35597		7.9	7253	11432	6793	10099	
TOT PCT	46.4	46.0	7.2	.3	*		100.0		100.0	100.0	100.0	100.0	

PERIOD: (PRIMARY) 1911-1978
(OVER-ALL) 1854-1978

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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)										
HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)			48+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47				
0000	7.4	12.7	53.7	24.7	1.6	*	.0	8.0	100.0	7253
0600	10.2	14.7	53.5	20.3	1.3	*	.0	7.2	100.0	11452
1200	6.5	12.4	52.9	26.5	1.6	.1	.0	8.3	100.0	6793
1800	5.4	11.3	54.4	27.0	1.8	.1	.0	8.5	100.0	10099
TOT								7.9		35597
PCT	7.5	12.4	53.7	24.3	1.6	*	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8-10	TOTAL	MEAN CLOUD COVER
N	.1	*	.1	.2		6.3
NE	.1	.1	.1	.3		5.3
E	1.0	.7	1.2	2.3		5.5
SE	10.8	5.8	13.8	23.5		5.6
S	7.4	4.3	8.6	12.3		5.4
SW	.6	.2	.6	1.2		5.6
W	.1	*	.2	.3		6.1
NW	*	*	.1	.2		6.6
VAR	.0	.0	.0	.0		.0
CALM	.9	.5	.7	1.8		5.5
TOT OBS					9899	5.5
TOT PCT	21.0	11.6	25.4	42.0	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8)
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

000	150	300	600	1000	2000	3500	5000	6500	8000+	NH <5/8	TOTAL
149	299	599	999	1999	3499	4999	6499	7999		ANY HGT	OBS
.0	.0	*	*	.1	.1	.0	*	.0	*	.1	
.0	.0	*	.1	.1	.1	*	*	.0	*	.3	
*	.1	.5	1.3	.7	.2	.1	*	.1	2.2		
.2	.3	.8	6.3	14.1	7.3	2.0	.5	.3	.5	21.5	
.2	.2	.4	3.3	7.3	4.1	1.3	.3	.2	.4	15.1	
*	*	.2	.7	.3	.1	*	.0	*	1.1		
*	*	.0	.1	.1	.1	*	.0	*	.2		
*	*	*	.1	.1	*	.0	.0	.0	.0	.0	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
.1	*	.1	.5	.8	.5	.1	*	.1	.1	1.7	
.5	.5	1.3	11.1	24.8	13.2	3.7	1.0	.6	1.1	42.3	9899
											100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE
OF CEILING HEIGHT (NH >4/8) AND VSBY (NH)

CEILING (FEET)	VSBY (NH)									
	>10	>5	>2	>1	>1/2	>1/4	>50YD	>0		
>6500	1.3	1.6	1.7	1.8	1.8	1.8	1.8	1.8		
>5000	2.1	2.6	2.7	2.7	2.7	2.7	2.7	2.7		
>3500	5.3	6.2	6.4	6.4	6.4	6.4	6.4	6.4		
>2000	16.5	19.3	19.6	19.6	19.6	19.6	19.6	19.6		
>1000	37.6	43.8	44.4	44.4	44.4	44.4	44.4	44.4		
>600	46.2	54.4	55.3	55.4	55.4	55.4	55.4	55.4		
>300	47.0	55.5	56.6	56.7	56.7	56.7	56.7	56.7		
>150	47.3	56.0	57.1	57.2	57.2	57.2	57.2	57.2		
>0	47.4	56.3	57.5	57.5	57.6	57.6	57.7	57.7		

TOTAL NUMBER OF OBS: 10063

PCT FREQ NH <5/8: 42.3

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	OBS	TOTAL
13.8	8.5	8.0	6.0	5.6	4.2	6.3	10.8	36.5	.2	10924

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TABLE 8

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PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	*	.0	.0	.0	.0	.0	*	
	NO PCP	.0	.0	*	.1	.1	*	*	*	.0	.1	.3	
	TOT %	.0	.0	*	.1	.1	*	*	*	.0	.1	.3	
1/2<1	PCP	.0	.0	.0	*	.0	.0	.0	.0	.0	.0	*	
	NO PCP	.0	.0	*	*	.1	*	.0	.0	.0	.0	.1	
	TOT %	.0	.0	*	.1	.1	*	.0	.0	.0	.0	.1	
1<2	PCP	*	.0	.0	.0	*	.0	.0	*	.0	.0	*	
	NO PCP	.0	.0	.0	.1	*	*	*	.0	.0	.0	.1	
	TOT %	*	.0	.0	.1	*	*	*	.0	.0	.0	.1	
2<5	PCP	.0	.0	*	.1	*	*	.0	.0	.0	*	.1	
	NO PCP	*	*	.1	.9	.6	*	.0	.0	.0	.2	1.9	
	TOT %	*	*	.1	.9	.6	.1	*	.0	.0	.2	2.0	
5<10	PCP	*	*	*	.2	.1	*	.0	*	.0	*	.4	
	NO PCP	.2	.2	1.2	9.0	4.8	.5	.3	.2	.0	1.2	17.7	
	TOT %	.2	.2	1.2	9.2	4.9	.6	.3	.2	.0	1.2	18.1	
10+	PCP	.0	.0	*	.2	.1	.0	*	*	.0	.0	.3	
	NO PCP	.3	.4	4.1	42.3	26.6	2.2	.4	.3	.0	2.5	79.0	
	TOT %	.3	.4	4.1	42.5	26.7	2.2	.4	.3	.0	2.5	79.3	
TOT OBS													12639
TOT PCT		.5	.7	5.5	52.8	32.4	2.9	.7	.5	.0	4.1	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	*	*	*	.0	.0	.0	.1	.1	
	4-10	*	.0	*	.1	*	*	*	*	.0	.0	.1	
	11-21	.0	.0	.0	*	*	.0	*	*	.0	.0	*	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	*	.0	*	.1	.1	*	*	*	.0	.1	.3	
1/2<1	0-3	.0	.0	.0	*	*	.0	.0	.0	.0	*	*	
	4-10	.0	.0	*	*	*	.0	.0	.0	.0	.0	.1	
	11-21	.0	.0	.0	*	*	.0	.0	.0	.0	.0	*	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	*	
	TOT %	.0	.0	*	*	*	.0	.0	.0	.0	*	.1	
1<2	0-3	.0	.0	*	*	*	.0	.0	.0	.0	*	.1	
	4-10	.0	.0	.0	*	*	*	.0	.0	.0	.0	.1	
	11-21	*	.0	.0	*	*	.0	.0	.0	.0	.0	*	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	*	.0	*	.1	*	*	*	*	.0	*	.2	
2<5	0-3	*	*	*	.1	.1	*	*	.0	.0	.3	.5	
	4-10	*	*	.1	.6	.4	*	*	.0	.0	.0	1.1	
	11-21	.0	*	*	.2	.1	*	.0	.0	.0	.0	.4	
	22+	.0	.0	.0	*	*	.0	.0	.0	.0	.0	*	
	TOT %	*	*	.1	.9	.6	.1	*	*	.0	.3	2.0	
5<10	0-3	.1	.1	.2	.7	.5	.2	.1	.1	.0	1.4	3.6	
	4-10	.1	.1	.8	4.8	2.6	.3	.1	.1	.0	.0	9.0	
	11-21	*	*	.2	3.0	1.2	.1	*	*	.0	.0	4.5	
	22+	*	*	*	.2	*	.0	*	*	.0	.0	.2	
	TOT %	.2	.2	1.3	8.7	4.4	.6	.3	.3	.0	1.4	17.3	
10+	0-3	.1	.1	.5	2.4	2.8	.6	.2	.1	.0	4.5	11.2	
	4-10	.2	.3	3.0	21.6	15.1	1.9	.3	.3	.0	.0	42.6	
	11-21	*	.1	1.0	16.4	7.1	.2	*	*	.0	.0	24.9	
	22+	*	*	*	1.1	.3	*	.0	*	.0	.0	1.4	
	TOT %	.3	.5	4.6	41.4	25.2	2.8	.6	.4	.0	4.5	80.1	
TOT OBS													17196
TOT PCT		.5	.8	6.0	51.2	30.3	3.4	.9	.6	.0	6.3	100.0	

PERIOD: (PRIMARY) 1911-1978
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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NH >4/8) AND
OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00003	.3	.6	1.3	9.7	23.1	10.8	3.2	1.0	.6	.9	51.4	48.6	2609
06009	.5	.3	1.2	11.8	25.6	13.6	3.5	.6	.7	1.7	59.5	40.5	2372
12015	.8	.6	1.7	13.2	28.6	16.1	3.9	1.2	.5	.8	67.4	32.6	2691
18021	.5	.4	.9	8.1	19.4	10.9	3.7	.9	.4	1.3	46.5	53.5	2707
TOT PCT	.5	.5	1.3	10.7	24.2	12.9	3.6	.9	.5	1.1	56.2	43.8	10399 100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.1	.1	*	1.7	16.4	81.7	4063
06009	.3	.2	.2	1.7	19.2	76.4	5044
12015	.6	.1	.2	2.8	18.9	77.5	3882
18021	.2	.1	.2	2.2	15.6	81.6	4495
TOT PCT	.3	.1	.2	2.1	17.6	79.8	17484 100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR
CEILING HGT (FEET, NH >4/8) BY HOUR

HOUR (GMT)	<150 <50VD	<600 <1	<1000 <5	1000+ AND 5+	NH <5/8 AND 5+	TOTAL OBS
00003	.3	2.2	13.7	40.1	46.2	2537
06009	.5	2.0	15.3	46.7	38.0	2293
12015	.8	3.3	18.6	51.4	30.0	2629
18021	.4	2.0	12.3	36.9	50.8	2606
TOT PCT	.5	2.4	15.0	43.8	41.2	10065 100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
85/89	.0	.0	*	*	*	*	.0	.0	*	*
80/84	.0	.0	*	.1	.4	.3	.1	*	.9	*
75/79	.0	.0	*	.2	1.2	2.5	1.8	.5	6.3	*
70/74	*	.0	*	.4	2.7	6.8	7.6	4.0	21.4	*
65/69	.0	.0	.0	.3	2.7	7.8	10.0	7.5	28.4	*
60/64	.0	.0	.0	.2	3.3	11.6	13.7	6.8	35.6	*
55/59	.0	.0	.0	.0	.1	1.4	3.8	2.0	7.4	*
50/54	.0	.0	.0	.0	.0	*	.0	*	*	*
TOT PCT	*	.0	.1	1.1	10.5	30.5	36.9	20.9	11311	100.0

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.0	.0	.0	*	*	*	.0	.0	.0	.0
.0	*	*	.4	.3	*	.0	.0	.0	*
*	.1	.3	3.4	2.1	.2	*	*	.0	.2
.1	.1	.9	10.9	7.7	.6	.2	.2	.0	.8
.2	.2	1.8	14.2	9.1	.9	.2	.2	.0	1.6
.2	.2	1.7	20.7	10.1	.8	.3	.2	.0	1.3
.1	*	.4	4.3	2.1	.2	*	*	.0	.3
.0	.0	*	*	.0	.0	.0	.0	.0	.0
.5	.6	5.2	54.0	31.4	2.7	.8	.6	.0	4.2

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	83	73	70	66	61	60	54	66.0	7223
06009	82	71	69	65	61	59	54	64.8	11505
12015	84	73	70	66	61	60	55	65.5	6728
18021	88	78	75	68	63	61	55	68.4	8722
TOT	88	75	72	66	61	60	54	66.1	34178

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	.7	7.2	30.2	38.6	23.3	82	2848
06009	.0	.5	7.4	26.7	39.1	26.4	83	2978
12015	.0	.5	8.2	29.4	38.3	23.6	82	2866
18021	*	3.0	18.4	35.6	31.7	11.2	77	2898
TOT	1	136	1196	3516	4282	2459	81	11590

ANNUAL
 PERIOD: (PRIMARY) 1911-1978
 (OVER-ALL) 1854-1978
 AREA 0031 MOLLENDU
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 TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)
 VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	53 56	57 60	61 64	65 68	69 72	73 76	77 80	81 84	85 88	TOT	W FOG	WD FOG
20/22	.0	.0	.0	.0	.0	.0	.0	.0	.0	1	.0	*
17/19	.0	.0	.0	.0	.0	.0	.0	.0	.0	2	.0	*
14/16	.0	.0	*	.1	.1	.1	.2	.1	*	41	*	.3
11/13	.0	*	.1	.3	.5	.2	.1	*	*	137	*	1.1
9/10	.0	*	.1	.3	.6	.5	.2	.1	*	224	.1	1.8
7/8	.0	.1	.3	.8	.8	.5	.3	.1	.0	348	.1	2.8
6	.0	*	.3	.8	.7	.3	.2	.1	*	299	.1	2.4
5	.0	.1	.9	1.4	.9	.6	.3	.1	.0	507	.1	4.1
4	.0	.2	1.3	1.6	1.1	.6	.2	*	.0	594	.2	4.8
3	*	.6	1.9	2.0	1.1	.7	.3	*	.0	775	.2	6.4
2	*	1.3	3.4	2.9	1.6	1.1	.3	*	.0	1288	.3	10.6
1	*	1.9	4.1	2.8	1.9	1.2	.4	*	.0	1458	.3	12.0
0	.1	2.2	5.5	3.3	2.8	2.0	.3	*	.0	1910	.2	15.9
-1	*	2.0	3.9	2.3	2.1	1.6	.2	.0	.0	1427	.2	11.9
-2	.1	1.8	3.3	2.1	1.6	1.0	.1	.0	.0	1174	.1	9.9
-3	*	1.2	2.0	1.1	1.2	.6	*	.0	.0	727	.1	6.1
-4	.1	.9	1.1	.8	.9	.3	*	.0	.0	476	*	4.0
-5	*	.5	.7	.6	.3	.2	*	.0	.0	261	*	2.2
-6	*	.2	.2	.3	.2	.1	.0	.0	.0	113	.0	1.0
-7/-8	*	.2	.1	.1	.1	*	.0	.0	.0	72	.0	.6
-9/-10	*	*	*	*	*	*	.0	.0	.0	12	.0	.1
-11/-13	.0	*	*	*	.0	.0	.0	.0	.0	2	.0	*
-14/-16	.0	.0	*	.0	.0	.0	.0	.0	.0	1	.0	*
TOTAL										11849		
PCT	.4	13.3	29.4	23.1	18.4	11.7	3.0	.6	.1	100.0	2.0	98.0

PERIOD: (OVER-ALL) 1963-1978

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	N	27-33	34-47	48+	PCT	1-3	4-10	11-21	NE	22-33	34-47	48+	PCT
<1	*	*	.0	.0	.0	.0	.0	.1	.1	*	.0	.0	.0	.0	.0	.1
1-2	.1	*	*	.0	.0	.0	.0	.1	*	.2	.1	.0	.0	.0	.0	.2
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	*	*	.0	.0	.0	.0	.1
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	*	*	.0	.0	.0	*
7	.0	.0	.0	.0	.0	.0	*	*	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	*	*	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.1	.1	*	*	*	.0	.0	.2	.1	.2	.1	*	*	.0	.0	.5

HGT	1-3	4-10	11-21	E	27-33	34-47	48+	PCT	1-3	4-10	11-21	SE	22-33	34-47	48+	PCT
<1	.2	.5	*	.0	.0	.0	.0	.7	1.1	2.1	.2	.0	.0	.0	.0	3.4
1-2	.2	1.9	.4	.0	.0	.0	.0	2.5	.8	13.9	5.6	.0	.0	.0	.0	20.3
3-4	*	1.0	.7	*	.0	.0	.0	1.7	.1	7.6	11.9	.3	.0	.0	.0	19.9
5-6	.0	*	.3	.0	.0	.0	.0	.3	*	1.0	7.2	.4	*	.0	.0	8.8
7	.0	*	.1	.0	.0	.0	.0	.1	*	.1	2.1	.5	*	.0	.0	2.8
8-9	.0	.0	.1	.0	.0	.0	.0	.1	.0	.1	.6	.3	.0	.0	.0	1.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	*	*	.0	.0	.0	.1
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	*	*	.0	.0	.0	.1
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	*	*	.0	.0	.0	.1
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	*	*	.0	.0	.0	*
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.3	3.5	1.6	*	.0	.0	.0	5.4	2.0	24.8	27.8	1.8	.1	.0	.0	56.6

PERIOD: (OVER-ALL) 1963-1978

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TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
41	.8	1.9	.2	.0	.0	.0	2.9	.1	.2	*	.0	.0	.0	.3
1-2	.7	10.0	2.6	.0	.0	.0	12.2	.2	.9	.1	.0	.0	.0	1.2
3-4	.2	4.8	4.7	.1	.0	.0	9.8	*	.4	.2	*	.0	.0	.6
5-6	*	.7	2.4	.2	.0	.0	3.2	*	*	.1	.0	.0	.0	.1
7	.0	.2	.9	.1	.0	.0	1.1	.0	*	.0	.0	.0	.0	*
8-9	.0	.1	*	.0	.0	.0	.3	.0	*	.0	.0	.0	.0	*
10-11	.0	.0	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	*	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.7	17.6	10.8	.4	.0	.0	30.6	.3	1.3	.4	*	.0	.0	2.2

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
41	.1	*	.0	.0	.0	.0	.1	.0	.1	.0	.0	.0	.0	.1	
1-2	.1	.2	*	.0	.0	.0	.3	.1	.1	.1	.0	.0	.0	.2	
3-4	.0	.1	.0	.0	.0	.0	.1	.0	*	.0	*	.0	.0	.1	
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	*	
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	*	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.2	.3	*	.0	.0	.0	.5	.1	.2	.1	*	.0	.0	.4	96.3

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	7.0	4.9	.4	.0	.0	.0	12.2	
1-2	2.6	26.7	8.8	.0	.0	.0	38.1	
3-4	.4	12.6	17.1	.5	.0	.0	31.6	
5-6	.1	1.7	9.7	.6	*	.0	12.2	
7	*	.4	2.9	.7	*	.0	4.0	
8-9	.0	.1	.9	.4	.0	.0	1.4	
10-11	.0	.0	.1	.1	.0	.0	.1	
12	.0	.0	.1	.1	.0	.0	.1	
13-16	.0	.0	*	*	.0	.0	.1	
17-19	.0	.0	*	*	.0	.0	*	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	10.1	47.4	40.1	2.3	.1	.0	100.0	4900

PERIOD: (OVER-ALL) 1949-1977

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT	
4-6	2.0	8.8	15.8	7.1	2.1	.7	.2	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3286	3
6-7	*	1.5	8.0	10.6	4.7	1.5	1.0	.3	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2466	5
8-9	*	.6	2.6	4.8	4.0	1.8	.8	.2	.3	.1	*	.0	*	.0	.0	.0	.0	.0	.0	.0	1339	6
10-11	.0	.6	1.3	2.1	1.7	1.0	.6	.3	.2	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	691	6
12-13	.0	.0	1.0	.6	.7	.4	.2	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	283	6
13-15	.0	.0	.0	.4	.3	.3	.1	*	.1	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	106	7
15-17	2.0	1.4	2.1	1.6	.7	.2	.2	*	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	714	3
TOTAL																					8883	5
PCT	4.0	12.9	30.8	27.1	14.0	5.8	3.1	1.1	.9	.2	*	.0	*	.0	.0	.0	.0	.0	.0	.0	100.0	

PERIOD: (PRIMARY) 1911-1978
(OVER-ALL) 1894-1978

TABLE 20

AREA 0031 MOLLENDQ
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PERCENT FREQUENCY OF OCCURRENCE OF SEA TEMP (DEG F) BY MONTH

SEA TMP DEG F	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANN	PCT
96+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
95/96	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
93/94	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
91/92	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
89/90	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
87/88	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
85/86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
83/84	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1	.0
81/82	.1	.8	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	36	.1
79/80	.5	1.7	.8	.3	.1	.1	.0	.0	.0	.0	.0	.0	110	.3
77/78	2.1	6.6	4.8	1.2	.0	.0	.0	.0	.0	.0	.0	.0	456	1.3
75/76	7.3	16.0	13.8	4.9	.3	.0	.1	.0	.0	.0	.0	.0	1321	3.6
73/74	16.2	17.6	16.6	4.8	1.4	.1	.0	.0	.1	.0	.3	2.9	1988	5.5
71/72	17.8	13.0	11.7	10.3	6.1	.6	.2	.0	.1	.1	1.8	9.7	2148	5.9
69/70	17.3	11.3	10.9	10.5	10.9	2.9	.3	.1	.1	1.0	5.8	16.7	2630	7.3
67/68	14.7	12.1	12.5	13.4	14.8	7.1	2.0	.7	.4	3.9	12.8	20.9	3435	9.5
65/66	11.4	8.4	11.2	14.2	19.0	18.2	7.9	2.9	3.6	12.8	20.9	17.2	4305	11.9
63/64	7.6	7.2	9.4	18.7	22.3	25.3	23.7	18.3	17.2	28.1	27.2	17.6	6695	18.5
61/62	2.9	3.0	5.2	11.7	15.6	19.7	28.3	27.7	29.1	23.9	16.3	9.1	9825	16.1
59/60	1.1	1.7	2.3	4.2	10.5	17.6	23.1	26.4	25.6	18.7	9.6	4.0	4390	12.1
57/58	.4	.3	.2	.7	2.2	7.3	11.1	18.1	17.8	8.1	4.6	.9	2198	6.1
55/56	.1	.1	.1	.1	.5	.8	2.6	5.2	5.6	2.5	.6	.2	569	1.6
53/54	.1	.2	.1	.0	.0	.1	.3	.3	.5	.5	.1	.0	71	.2
51/52	.0	.0	.0	.0	.0	.0	.2	.2	.0	.3	.0	.0	21	.1
49/50	.0	.0	.0	.0	.1	.0	.2	.0	.0	.1	.0	.0	13	.0
47/48	.0	.0	.0	.0	.0	.0	.1	.1	.0	.1	.0	.0	9	.0
45/46	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1	.0
43/44	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
41/42	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
39/40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
37/38	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
35/36	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
33/34	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
31/32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
29/30	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
27/28	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
<27	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
TOTAL	3062	2917	3334	2946	2742	2925	3023	2901	3335	3080	3089	2868	36222	100.0
MEAN	69.6	70.7	69.7	67.1	64.8	62.8	61.3	60.4	60.4	61.9	63.9	66.4	64.9	

TABLE 21

PRESSURE (MB)

AVERAGE BY HOUR (GMT)

MO	0000	0300	0600	0900	1200	1500	1800	2100	MEAN	TOTAL OBS
JAN	1013	1013	1013	1011	1013	1013	1013	1011	1013	1674
FEB	1012	1013	1012	1012	1013	1013	1012	1011	1012	1605
MAR	1012	1013	1013	1012	1013	1013	1012	1011	1012	1829
APR	1013	1014	1013	1012	1014	1014	1013	1012	1013	1371
MAY	1015	1015	1015	1014	1015	1015	1015	1013	1015	1408
JUN	1016	1017	1016	1015	1016	1017	1016	1015	1016	1544
JUL	1016	1017	1016	1015	1016	1018	1016	1015	1016	1586
AUG	1016	1017	1016	1015	1016	1017	1016	1015	1016	1547
SEP	1016	1017	1016	1015	1016	1017	1016	1015	1016	1562
OCT	1016	1016	1016	1015	1016	1016	1016	1015	1016	1499
NOV	1015	1016	1015	1014	1015	1016	1015	1013	1015	1441
DEC	1014	1014	1013	1012	1014	1012	1014	1012	1013	1477
ANN	1015	1015	1015	1014	1015	1015	1015	1013	1014	18743
OBS	3983	234	4013	1141	3873	320	4289	890		

PERCENTILES

MO	MIN	1%	5%	25%	50%	75%	95%	99%	MAX
JAN	1005	1008	1009	1011	1013	1014	1016	1017	1019
FEB	1003	1007	1009	1011	1012	1014	1016	1018	1020
MAR	1004	1007	1009	1011	1012	1014	1016	1017	1021
APR	1004	1008	1010	1012	1013	1015	1017	1019	1023
MAY	1008	1010	1012	1013	1014	1016	1018	1020	1024
JUN	1007	1010	1012	1013	1016	1017	1019	1022	1025
JUL	1007	1009	1012	1013	1016	1017	1019	1021	1024
AUG	946	1011	1013	1015	1016	1018	1020	1022	1023
SEP	1007	1010	1012	1013	1016	1017	1019	1021	1023
OCT	1008	1010	1012	1014	1016	1017	1019	1021	1024
NOV	1007	1009	1011	1013	1015	1016	1018	1020	1023
DEC	1005	1008	1010	1012	1013	1015	1017	1019	1023

PERIOD: (PRIMARY) 1914-1978
(OVER-ALL) 1855-1978

JANUARY

AREA 0052 LIMA
11.45 78.3W

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA								NO SIG WFA
	RAIN	RAIN CHMR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FGD MO PCPN	FGD MO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WFA	
N	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	8.2	.0	.0	.0	.0	91.8
NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	40.0	.0	.0	.0	.0	60.0
E	9.2	.0	.0	.0	.0	.0	.0	9.2	.0	.0	2.3	.0	.0	.0	.0	88.5
SE	.3	.2	.3	.0	.0	.0	.0	.8	.0	.2	4.6	.2	1.3	.1	.0	92.9
S	.1	.1	.0	.0	.0	.0	.0	.2	.6	.0	4.1	.5	2.3	.3	.0	92.0
SW	1.8	.0	.0	.0	.0	.0	.0	1.8	.5	1.8	4.1	.5	2.3	1.8	.0	87.4
W	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
NW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
VAR	.0	.0	.0	.0	.0	.0	.0	1.3	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	1.3	.0	.0	.0	.0	1.3	.0	1.3	17.9	.0	.0	.0	.0	79.5
TOT PCT	.4	.1	.3	.0	.0	.0	.0	.7	.3	.2	5.2	.3	1.6	.2	.0	91.4
TOT OBS:	1365															

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA								NO SIG WFA
	RAIN	RAIN CHMR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FGD MO PCPN	FGD MO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WFA	
00003	.0	.3	.0	.0	.0	.0	.0	.3	.3	.3	2.6	.0	1.5	.3	.0	94.7
06009	.8	.0	.3	.0	.0	.0	.0	.8	.0	.5	4.8	.3	1.6	.0	.0	91.9
12015	.6	.3	.9	.0	.0	.0	.0	1.7	.6	.0	9.7	.9	1.4	.3	.0	95.4
18021	.0	.0	.0	.0	.0	.0	.0	.0	.3	.0	4.8	.0	2.4	.3	.0	92.3
TOT PCT	.4	.1	.3	.0	.0	.0	.0	.7	.3	.2	5.5	.3	1.7	.2	.0	91.1
TOT OBS:	1399															

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	0-3	WIND SPEED (KNOTS)					48+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)							
		4-10	11-21	22-33	34-47	00					03	06	09	12	15	18	21	
N	.4	.4	.0	.0	.0	.0		1.0	4.2	.3	2.5	1.2	1.2	1.2	3.3	.8	1.5	
NE	.2	.4	.1	.0	.0	.0		.8	6.0	.4	4.2	.9	2.5	.7	2.2	.3	.0	
E	.6	1.7	.3	.0	.0	.0		2.7	6.3	.8	.0	2.0	5.4	3.2	3.3	3.8	2.3	
SE	3.2	28.9	10.0	*	*	*		42.1	8.5	40.9	59.2	38.7	38.0	46.7	46.7	44.4	39.0	
S	4.6	24.0	7.3	.1	.0	.0		39.0	7.7	44.1	30.0	41.0	32.4	35.5	31.5	37.8	42.7	
SW	1.1	3.1	.4	.0	.0	.0		4.6	5.9	5.0	.8	3.9	4.8	3.1	8.7	5.2	8.0	
W	.6	.4	.1	.0	.0	.0		1.3	4.8	1.2	3.3	1.5	1.8	1.0	.0	1.1	1.8	
NW	.4	.7	*	.0	.0	.0		1.1	4.4	.9	.0	1.5	1.8	1.2	.0	.9	.8	
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	7.3							7.3	.0	6.4	.0	9.4	12.1	7.5	4.3	5.7	4.0	
TOT OBS	531	1484	500	3	1	0	2723		7.2	547	30	564	257	521	23	583	198	
TOT PCT	19.5	62.0	18.4	.1	.0	.0		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)					TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)			
	0-6	7-16	17-27	28-40	41+				00	03	09	15
N	.9	.1	.0	.0	.0		1.0	4.2	.4	1.2	1.3	1.0
NE	.5	.2	.0	.0	.0		.8	6.0	.6	1.4	.8	.2
E	1.6	1.1	.0	.0	.0		2.7	6.3	.7	3.0	3.2	3.4
SE	14.9	26.0	1.2	.0	.0		42.1	8.5	41.8	38.3	46.7	43.1
S	17.5	20.7	.7	.0	.0		39.0	7.7	43.4	38.3	35.3	39.0
SW	3.1	1.5	.0	.0	.0		4.6	5.9	4.8	4.2	3.4	5.9
W	1.1	.2	.0	.0	.0		1.3	4.8	.9	1.6	.9	1.2
NW	1.1	.0	.0	.0	.0		1.1	4.4	.9	1.6	1.1	.9
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0
CALM	7.3						7.3	.0	6.1	10.2	7.4	5.2
TOT OBS	1309	1358	55	1	0	2723		7.2	577	821	544	781
TOT PCT	48.1	49.9	2.0	.0	.0		100.0		100.0	100.0	100.0	100.0

JANUARY

PERIOD: (PRIMARY) 1914-1976
(OVER-ALL) 1855-1976

TABLE 4

AREA 0032 LIMA
11.45 76.3W

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)				48+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47					
00003	0.1	11.4	61.4	21.0	.2	.0	.0	.0	7.5	100.0	577
06009	10.2	12.1	59.0	18.4	.2	.1	.0	.0	7.0	100.0	821
12015	7.4	14.2	61.8	16.7	.0	.0	.0	.0	7.0	100.0	544
18021	5.2	11.4	65.8	17.5	.0	.0	.0	.0	7.3	100.0	781
TOT	270	331	1588	510	3	1	0	0	7.2		2723
PCT	7.3	12.2	62.0	18.4	.1	.0	.0	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8-10	TOTAL OBS	MEAN CLOUD COVER
N	.1	.0	.1	.2	5.5	5.5
NE	.2	.0	.0	.0	1.2	1.2
E	.4	.3	.2	.4	4.5	4.5
SE	11.4	10.5	15.9	4.4	4.4	4.4
S	11.7	9.7	14.3	7.0	4.4	4.4
SW	.5	1.2	1.4	.8	5.1	4.5
W	.1	.2	.2	.1	4.5	4.5
NW	.0	.0	.1	.1	6.3	6.3
VAR	.0	.0	.0	.0	.0	.0
CALM	2.2	.5	1.4	2.0	4.0	4.0
TOT OBS	272	229	346	174	1021	4.5
TOT PCT	26.6	22.4	33.9	17.0	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NM >4/8)
AND OCCURRENCE OF NM <5/8 BY WIND DIRECTION

	000	150	300	600	1000	2000	3500	5000	6500	8000+	NM <5/8	TOTAL
	149	299	599	999	1999	3499	4999	6499	7999		ANY HGT	OBS
N	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1	.2	
NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	
E	.0	.0	.0	.3	.0	.1	.0	.0	.0	.0	1.0	
SE	.6	.0	.5	2.7	5.0	3.3	1.2	.3	.2	.0	29.8	
S	.5	.3	.4	2.3	4.2	3.3	1.5	.4	.3	.1	29.6	
SW	.0	.1	.1	.5	.3	.1	.3	.1	.0	.0	2.4	
W	.0	.0	.0	.0	.2	.0	.0	.0	.1	.0	.3	
NW	.0	.0	.0	.0	.1	.0	.0	.0	.1	.0	.0	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.2	.1	.0	.7	.8	1.0	.1	.2	.0	.0	3.1	
TOT OBS	13	6	10	67	108	79	31	10	7	8	682	1021
TOT PCT	1.3	.6	1.0	6.4	10.6	7.7	3.0	1.0	.7	.8	66.8	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE
OF CEILING HEIGHT (NM >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)							
	>10	>5	>2	>1	>1/2	>1/4	>50YD	>0
>4500	1.1	1.8	1.8	1.8	1.8	1.8	1.8	1.8
>4000	1.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
>3500	4.6	5.9	5.9	5.9	5.9	5.9	5.9	5.9
>3000	11.1	13.1	13.2	13.3	13.4	13.4	13.4	13.4
>2500	19.6	23.0	23.6	23.8	23.8	23.9	23.9	23.9
>2000	24.5	29.4	30.3	30.6	30.7	30.8	30.8	30.8
>1500	25.1	30.3	31.3	31.6	31.7	31.8	31.8	31.8
>1000	25.4	30.7	31.8	32.1	32.2	32.4	32.4	32.4
>500	25.4	30.7	31.9	32.3	32.5	33.1	33.5	33.7
TOTAL	264	319	332	336	338	344	348	350

TOTAL NUMBER OF OBS: 1040

PCT FREQ NM <5/8: 66.3

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	OBSCD	TOTAL OBS
19.0	16.2	12.4	12.0	9.1	7.3	7.7	7.9	11.0	1.0	1114

PERIOD: (PRIMARY) 1914-1978
(COVER-ALL) 1854-1978

JANUARY

AREA 0032 LIMA
11.45 78.3W

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1	
	NH PCP	.0	.1	*	.7	.7	.0	.0	.0	.0	.3	1.8	
	TOT %	.0	.1	*	.7	.7	.0	.0	.0	.0	.4	1.9	
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NH PCP	.0	.0	.0	.3	.4	.0	.0	.0	.0	.0	.7	
	TOT %	.0	.0	.0	.3	.4	.0	.0	.0	.0	.0	.7	
1<2	PCP	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.1	
	NH PCP	.0	.1	.0	.2	.1	.0	.0	.0	.0	.1	.5	
	TOT %	.0	.1	.0	.2	.1	.0	.0	.0	.0	.1	.6	
2<5	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NH PCP	.1	.0	.0	.7	1.1	.1	.0	.0	.0	.3	2.4	
	TOT %	.1	.0	.0	.7	1.1	.1	.0	.0	.0	.3	2.4	
5<10	PCP	.0	.0	.0	.2	*	.1	.0	.0	.0	.0	.3	
	NH PCP	.2	*	.1	6.3	5.5	1.3	.5	.3	.0	1.0	15.3	
	TOT %	.2	*	.1	6.5	5.6	1.3	.5	.3	.0	1.0	15.6	
10+	PCP	.0	.0	.1	.4	.1	.0	.0	.0	.0	.0	.3	
	NH PCP	.3	.1	1.2	35.1	34.7	2.4	.4	.2	.0	3.9	78.6	
	TOT %	.3	.1	1.3	35.3	34.7	2.4	.4	.2	.0	3.9	78.9	
TOT OBS													1348
TOT PCT		.6	.3	1.5	43.6	42.7	4.1	.9	.5	.0	5.8	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.2	*	.0	.0	.0	.0	.6	.9	
	4-10	.0	.1	*	.5	.7	.0	.0	.0	.0	.0	1.3	
	11-21	.0	.0	.0	*	.1	.0	.0	.0	.0	.0	.1	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.1	*	.8	.8	.0	.0	.0	.0	.6	2.3	
1/2<1	0-3	.0	.0	.0	.1	.2	.0	.0	.0	.0	.0	.2	
	4-10	.0	.0	.0	.2	.3	.0	.0	.0	.0	.0	.5	
	11-21	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.1	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.1	.0	.2	.5	.0	.0	.0	.0	.0	.8	
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	.3	
	4-10	.0	.1	.1	.1	.1	.0	.0	.0	.0	.0	.4	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.1	.1	.1	.1	.0	.0	.0	.0	.3	.7	
2<5	0-3	.0	.0	.0	*	.3	.2	.0	.0	.0	.4	.9	
	4-10	.1	.0	.0	.8	.9	.1	.0	.0	.0	.0	1.8	
	11-21	.0	.0	.0	.1	.2	.0	.0	.0	.0	.0	.3	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.1	.0	.0	.9	1.4	.2	.0	.0	.0	.4	3.0	
5<10	0-3	.1	.0	.0	.5	1.3	.3	.2	.1	.0	1.6	4.2	
	4-10	*	*	*	4.1	4.6	1.0	.3	.2	.0	.0	10.3	
	11-21	.0	.0	*	1.9	.7	.1	.1	.1	.0	.0	2.9	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.2	*	.1	6.6	6.6	1.4	.6	.3	.0	1.6	17.4	
10+	0-3	.1	.1	.2	1.5	3.0	.4	.2	.1	.0	4.1	9.7	
	4-10	.2	.2	.8	23.8	22.4	1.9	.2	.1	.0	.0	49.7	
	11-21	.0	.0	.1	7.2	8.3	.6	*	.0	.0	.0	16.3	
	22+	.0	.0	.0	*	.2	.0	.0	.0	.0	.0	.2	
	TOT %	.3	.2	1.2	32.5	33.9	3.0	.5	.2	.0	4.1	75.8	
TOT OBS													1601
TOT PCT		.5	.5	1.4	41.1	43.3	4.6	1.0	.5	.0	7.0	100.0	

PERIOD: (PRIMARY) 1914-1978
(OVER-ALL) 1855-1978

JANUARY

AREA 0032 LIMA
11.45 78.3W

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NM >4/8) AND
OCCURRENCE OF NM <5/8 BY HOUR

HOUR (GMT)	000	150	300	450	600	750	900	1050	1200	1350	1500	1650	1800	1950	TOTAL	NM <5/8 ANY HGT	TOTAL OBS
00003	.7	1.1	.7	4.0	7.9	6.7	2.2	1.1	1.1	.0	23.5	76.5	277				
06009	.7	.4	1.4	8.7	8.7	10.1	4.0	.7	.4	1.4	36.6	63.4	276				
12015	2.2	.7	1.1	8.0	16.8	8.4	3.6	1.1	1.1	1.8	44.9	55.1	274				
18021	1.2	.0	.8	5.6	7.2	6.0	2.0	.8	.0	1.2	24.8	75.2	250				
TOT	13	6	11	71	110	79	32	10	7	12	351	726	1077				
PCT	1.2	.6	1.0	6.6	10.2	7.3	3.0	.9	.6	1.1	32.6	67.4	100.0				

TABLE 11

PERCENT FREQUENCY VSRY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	1.1	.3	.5	2.4	16.0	79.2	380
06009	2.4	.9	1.3	2.6	19.2	73.6	459
12015	4.2	1.0	1.0	3.4	17.2	73.1	383
18021	2.2	1.0	.0	3.9	16.3	76.6	410
TOT	40	13	12	50	284	1233	1632
PCT	2.5	.8	.7	3.1	17.4	75.6	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSRY (NM) AND/OR
CEILING HGT (FEET, NM >4/8) BY HOUR

HOUR (GMT)	<150 <500	<600 <1	<1000 <5	1000+ AND 5+	NM <5/8 AND 5+	TOTAL OBS
00003	.8	3.1	9.2	16.8	74.0	202
06009	.7	3.0	14.2	25.0	60.8	268
12015	2.2	4.4	15.0	31.9	53.1	273
18021	1.3	2.5	9.7	17.3	73.0	237
TOT	13	34	126	239	675	1040
PCT	1.3	3.3	12.1	23.0	64.9	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
85/89	.0	.0	.0	.0	.1	.1	.0	.0	2	.2
80/84	.0	.0	.1	.2	1.0	1.2	.9	.1	38	3.5
75/79	.0	.0	.0	.0	2.3	9.7	7.6	2.6	242	22.2
70/74	.0	.0	.0	.0	.2	6.0	21.3	20.1	520	47.6
65/69	.0	.0	.0	.0	.3	5.5	18.8	26.8	268	24.5
60/64	.0	.0	.0	.0	.0	.0	1.8	.2	22	2.0
TOTAL	0	0	1	2	39	188	388	474	1092	100.0
PCT	.0	.0	.1	.2	3.6	17.2	35.5	43.4		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.0	.0	.0	.1	.0	.0	.0	.0	.0	.1
.0	.0	.0	1.6	1.5	.2	.0	.0	.0	.2
.1	.1	.9	9.8	8.6	1.0	.3	.1	.0	1.3
.1	.0	.5	22.5	20.5	1.6	.2	.3	.0	2.0
.3	.2	.3	8.9	9.9	1.1	.7	.3	.0	2.8
.0	.0	.0	.5	1.1	.2	.0	.0	.0	.3
.5	.4	1.6	43.4	41.6	4.1	1.1	.6	.0	6.7

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	86	80	77	72	66	64	63	71.7	571
06009	84	77	75	70	64	62	61	69.7	822
12015	83	79	77	71	64	63	61	70.7	542
18021	88	85	82	74	68	64	62	74.6	716
TOT	86	82	79	72	65	63	61	71.7	2651

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	.0	2.2	16.9	41.2	39.7	86	272
06009	.0	.3	.7	9.3	29.2	60.5	90	301
12015	.0	.0	1.1	13.8	32.5	52.7	88	283
18021	.0	.8	10.9	29.1	39.2	20.0	81	265
TOT	0	3	40	190	396	492	86	1121

PERIOD: (PRIMARY) 1914-1978
(OVER-ALL) 1854-1978

JANUARY

AREA 0032 LIMA
11.4S 78.3W

TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TEMP DIF	61 64	65 68	69 72	73 76	77 80	81 84	85 88	TOT	W FOG	NO FOG
17/19	.0	.0	.0	.0	.1	.0	.0	1	.0	.1
14/16	.0	.0	.0	.1	.1	.1	.0	3	.0	.2
11/13	.0	.2	.2	.5	.2	.5	.2	23	.2	1.6
7/10	.0	.1	.4	.7	.7	.4	.2	31	.2	2.3
7/8	.0	.5	1.2	.5	.9	1.0	.1	55	.3	4.0
6	.1	.6	.8	.2	.8	.2	.0	34	.2	2.4
5	.0	.9	.8	1.2	.9	.3	.0	53	.4	3.7
4	.1	.9	2.4	1.6	1.2	.1	.0	82	.6	5.8
3	.2	.9	3.1	1.9	1.2	.0	.0	93	.5	6.7
2	.6	2.8	3.2	3.1	1.7	.0	.0	147	.7	10.8
1	.5	2.9	5.2	4.4	.9	.0	.0	179	.9	13.0
0	.6	2.7	6.0	5.1	1.4	.1	.0	212	.9	15.6
-1	.3	1.3	4.3	7.0	.2	.0	.0	169	.3	12.9
-2	.2	.8	2.7	2.7	.4	.0	.0	86	.0	6.7
-3	.1	.4	2.4	1.4	.2	.0	.0	57	.0	4.4
-4	.1	.2	1.1	.5	.2	.0	.0	28	.2	2.0
-5	.0	.2	.8	.3	.1	.0	.0	18	.1	1.3
-6	.1	.0	.0	.1	.0	.0	.0	2	.1	.1
-7/-8	.0	.1	.2	.4	.0	.0	.0	8	.0	.6
-9/-10	.0	.1	.0	.0	.0	.0	.0	1	.0	.1
-14/-18	.0	.1	.0	.0	.0	.0	.0	1	.0	.1
TOTAL	35		455		145		35	1283	73	1210
PCT	2.7	15.5	35.5	31.9	11.3	2.7	.4	100.0	5.7	94.3

PERIOD: (OVER-ALL) 1943-1978

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
41	.2	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.2	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
41	.0	.6	.0	.0	.0	.0	.6	.0	2.8	.0	.0	.0	.0	3.3
1-2	.0	.5	.0	.0	.0	.0	.5	2.3	17.6	4.8	.0	.0	.0	24.8
3-4	.0	.0	.0	.0	.0	.0	.0	.1	8.0	6.9	.0	.0	.0	15.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.5	2.0	.0	.0	.0	2.6
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.2
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	1.2	.0	.0	.0	.0	1.2	3.0	28.7	14.0	.0	.0	.0	45.8

PERIOD: (OVER-ALL) 1963-1978

JANUARY

AREA 0032 LIMA

TABLE 18 (CONT)

11.45 78.3M

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	1.1	3.6	.1	.0	.0	.0	4.9	.2	1.0	.2	.0	.0	.0	1.4	
1-2	.9	18.3	3.6	.0	.0	.0	22.8	.4	1.2	.6	.0	.0	.0	2.3	
3-4	.5	4.2	4.4	.0	.0	.0	9.2	.0	.0	.1	.0	.0	.0	.1	
5-6	.0	1.2	2.5	.2	.0	.0	3.9	.0	.0	.0	.0	.0	.0	.0	
7	.0	.0	.0	.0	.0	.0	.4	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	2.5	27.6	10.9	.2	.0	.0	41.2	.6	2.4	1.0	.0	.0	.0	4.0	

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
5-6	.0	.0	.1	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.0	.2	.3	.0	.0	.0	.5	.0	.0	.0	.0	.0	.0	.0	92.9

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT
<1	9.7	7.7	.4	.0	.0	.0	17.8	085
1-2	4.4	37.5	9.1	.0	.0	.0	51.1	
3-4	.8	12.0	11.2	.0	.0	.0	24.0	
5-6	.0	1.7	4.6	.2	.0	.0	6.6	
7	.0	.0	.2	.0	.0	.0	.6	
8-9	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	14.9	59.2	25.7	.2	.0	.0	100.0	517

PERIOD: (OVER-ALL) 1949-1978

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	2.0	13.1	19.5	5.7	.6	.4	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	396	3
6-7	.3	3.2	9.2	9.5	.8	.4	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	223	4
8-9	.0	.7	3.0	5.0	3.2	.5	.1	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	119	5
10-11	.0	1.3	5.0	1.5	.9	.1	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	87	4
12-13	.0	.0	1.8	.5	.3	.2	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	30	5
13-14	.0	.0	.0	.3	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	4	6
INDRY	5.1	1.9	1.7	.4	.3	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	92	2
TOTAL	70	191	380	217	59	19	10	2	1	0	0	0	0	0	0	0	0	0	0	969	3
PCT	7.4	20.1	40.0	22.9	6.2	2.0	1.1	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	

PERIOD: (PRIMARY) 1929-1978
(OVER-ALL) 1874-1978

FEBRUARY

AREA 0032 LIMA
11.35 78.4W

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

PRECIPITATION TYPE										OTHER WEATHER PHENOMENA					
WIND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
N	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	20.0	.0	.0	.0	80.0
NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.4	.0	9.8	.0	87.8
E	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	12.8	.0	8.5	.0	78.7
SE	.0	.0	.2	.0	.0	.0	.0	.2	.4	.5	3.6	.4	1.9	.0	93.1
S	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1	3.3	.2	2.8	.0	93.5
SW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	10.3	1.8	8.5	.0	79.4
W	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	8.8	.0	.0	.0	93.2
NW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	7.1	.0	.0	.0	92.9
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	1.5	.0	28.4	1.5	9.0	.0	59.7
TOT PCT	.0	.0	.1	.0	.0	.0	.0	.1	.3	.2	5.4	.4	3.1	.0	90.4
TOT OBS:	1225														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST BLWG SNOW	NO SIG WEA
00003	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	2.4	.0	2.1	.0	95.2
06009	.0	.0	.0	.0	.0	.0	.0	.0	.0	.7	5.3	.0	1.8	.0	92.3
12015	.0	.0	.3	.0	.0	.0	.0	.3	.9	.0	10.4	1.2	4.5	.0	82.7
18021	.0	.0	.0	.0	.0	.0	.0	.0	.3	.0	2.9	.3	3.6	.0	92.9
TOT PCT	.0	.0	.1	.0	.0	.0	.0	.1	.3	.2	5.3	.4	3.0	.0	90.6
TOT OBS:	1260														

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	48+					00	03	06	09	12	15	18	21
N	.3	.3	*	.0	.0	.0		.6	4.1		.2	.0	.5	2.0	.4	.0	.5	2.1
NE	.2	.6	.2	.0	.0	.0		.9	6.8		1.2	.0	1.4	.5	.5	.0	1.2	.3
E	.5	1.1	.4	.0	.0	.0		2.1	7.0		1.1	2.7	1.7	2.4	2.8	.9	3.6	.9
SE	3.9	29.9	12.0	.3	.0	.0		46.1	8.6		42.3	73.9	44.5	48.2	47.6	70.7	43.8	46.4
S	4.8	25.5	7.7	.2	.0	.0		38.2	7.9		43.7	19.0	38.4	30.5	35.9	23.3	40.0	41.6
SW	.9	2.4	.4	.0	.0	.0		3.6	5.7		4.8	.0	2.5	3.1	3.7	.0	4.5	3.7
W	.5	.4	.0	.0	.0	.0		.8	4.3		.9	.0	.5	1.0	.9	.0	1.0	1.3
NW	.3	.3	.0	*	.0	.0		.7	5.4		.7	.0	1.2	1.9	.2	.0	.3	.1
VAR	.0	.0	.0	.0	.0	.0		.0	.0		.0	.0	.0	.0	.0	.0	.0	.0
CALM	6.9							6.9	.0		5.2	4.3	9.2	10.5	8.6	5.2	4.9	3.6
TOT OBS	451	1497	513	13	0	0		2474	7.5		520	46	488	220	467	58	506	169
TOT PCT	18.2	60.5	20.7	.5	.0	.0		100.0			100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)				41+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)			
	0-6	7-16	17-27	28-40					00	06	12	18
N	.6	.1	.0	.0	.0	.0	.6	4.1	.2	1.0	.3	.9
NE	.6	.4	.0	.0	.0	.0	.9	6.8	1.1	1.1	.4	1.0
E	1.2	.7	.1	.0	.0	.0	2.1	7.0	1.2	1.9	2.1	2.9
SE	16.9	27.7	1.4	.0	.0	.0	46.1	8.6	44.8	45.6	50.2	44.5
S	15.9	21.3	1.0	.0	.0	.0	41.7	7.9	41.7	35.9	34.5	40.4
SW	2.6	1.0	.1	.0	.0	.0	3.6	5.7	4.4	2.7	3.3	4.3
W	.7	.2	.0	.0	.0	.0	.8	4.3	.8	.7	.8	1.1
NW	.5	.1	*	.0	.0	.0	.7	5.4	.6	1.4	.1	.3
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	6.9						6.9	.0	5.1	9.6	8.2	4.6
TOT OBS	1135	1273	66	0	0	2474	566	7.5	566	708	525	675
TOT PCT	45.9	51.5	2.7	.0	.0	100.0			100.0	100.0	100.0	100.0

PERIOD: (PRIMARY) 1923-1978
(OVER-ALL) 1874-1978

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11.35 78.4W

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GHT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)				48+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47					
00003	5.1	11.3	64.5	18.6	.5	.0	.0	7.5	100.0	566	
00009	9.6	12.0	59.7	17.9	.7	.0	.0	7.2	100.0	708	
12015	8.2	11.4	59.2	20.8	.4	.0	.0	7.3	100.0	525	
18021	4.6	10.5	59.0	25.5	.4	.0	.0	7.9	100.0	675	
TOT	1.71	280	1497	513	13	0	0	7.5		2474	
PCT	6.9	11.3	60.5	20.7	.5	.0	.0	100.0			

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8-6 OBSGD	TOTAL OBS	MEAN CLOUD COVER
N	.0	.0	.1	.0		3.0
NE	.2	.1	.1	.0		3.1
E	.3	.7	.4	.4		4.4
SE	11.3	11.6	17.7	5.2		4.4
S	12.2	11.2	12.3	5.9		4.2
SW	.6	.7	1.3	.8		5.0
W	.1	.1	.1	.2		4.6
NW	.0	.0	.3	.1		7.2
VAR	.0	.0	.0	.0		.0
CALM	1.2	.8	1.9	1.9		5.1
TOT OBS	224	218	296	125	863	4.4
TOT PCT	26.0	25.3	34.3	14.5	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH > 4/8)
AND OCCURRENCE OF NH < 5/8 BY WIND DIRECTION

000	150	300	600	1000	2000	3500	5000	6500	8000+	NH < 5/8	TOTAL
149	299	599	999	1999	3499	4999	6499	7999		ANY HGT	OBS
.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0
.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.3
.2	.0	.0	.1	.2	.0	.0	.0	.0	.0	.0	1.4
.4	.0	.3	2.1	4.9	3.5	1.0	.8	.1	.4	.4	32.4
.7	.0	.3	1.5	3.0	2.4	1.0	.2	.3	.4	.4	31.8
.0	.0	.0	.0	.5	.6	.0	.0	.0	.2	.2	2.1
.0	.0	.0	.1	.1	.0	.0	.0	.0	.0	.0	.3
.0	.0	.0	.1	.1	.1	.1	.0	.0	.0	.0	.0
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
.6	.0	.0	.8	.5	.2	.1	.0	.0	.2	.3	3.2
16	0	6	41	81	60	19	8	3	11	618	863
1.9	.0	.7	4.8	9.4	7.0	2.2	.9	.3	1.3	71.6	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE
OF CEILING HEIGHT (NH > 4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)							
	> 10	> 5	> 2	> 1	> 1/2	> 1/4	> 50YD	> 0
> 6500	1.4	1.6	1.7	1.7	1.7	1.7	1.7	1.7
> 5000	2.1	2.5	2.6	2.6	2.6	2.6	2.6	2.6
> 3500	3.8	4.3	4.5	4.5	4.5	4.5	4.5	4.5
> 2000	9.3	10.9	11.3	11.3	11.3	11.3	11.3	11.3
> 1000	16.5	19.2	20.6	20.7	20.8	20.8	20.9	20.9
> 600	19.8	23.7	25.4	25.5	25.6	25.6	25.7	25.7
> 300	20.5	24.5	26.2	26.3	26.4	26.4	26.5	26.5
> 150	20.5	24.5	26.2	26.3	26.4	26.4	26.5	26.5
> 0	20.5	24.5	26.4	26.7	27.2	27.3	28.1	28.4
TOTAL	179	214	231	233	238	239	246	248

TOTAL NUMBER OF OBS: 874

PCT FREQ NH < 5/8: 71.6

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	OBSCD	TOTAL
										OBS
18.8	15.1	15.9	12.8	7.8	6.1	7.3	3.6	8.9	1.7	956

NAVAL WEATHER SERVICE DETACHMENT ASHEVILLE N C F/G 4/2
SUMMARY OF SYNOPTIC METEOROLOGICAL OBSERVATIONS (SSMO) SOUTH AM--ETC(U)
FEB 79

F/G 4/2
H AM--ETC(U)

NL

AD
A064337

100

PERIOD: (PRIMARY) 1923-1978
(OVER-ALL) 1874-1978

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AREA 0032 LIMA
11.33 78.4W

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NN PCP	.0	.0	*	.4	.4	.0	.0	.0	.0	.0	.7	1.5
	TOT %	.0	.0	*	.4	.4	.0	.0	.0	.0	.0	.7	1.5
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NN PCP	*	.0	.1	.3	.3	.1	.0	*	.0	.0	.2	1.0
	TOT %	*	.0	.1	.3	.3	.1	.0	*	.0	.0	.2	1.0
1<2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NN PCP	.0	.0	.0	.3	.2	.0	.0	.0	.0	.0	.2	.6
	TOT %	.0	.0	.0	.3	.2	.0	.0	.0	.0	.0	.2	.6
2<5	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NN PCP	.0	*	.2	.4	.4	.3	.0	.0	.0	1.0	2.3	
	TOT %	.0	*	.2	.4	.4	.3	.0	.0	.0	1.0	2.3	
5<10	PCP	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.1
	NN PCP	.0	.3	.4	5.0	5.6	.9	.1	.1	.0	.9	13.2	
	TOT %	.0	.3	.4	5.1	5.6	.9	.1	.1	.0	.9	13.3	
10+	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NN PCP	.2	.6	1.3	38.0	34.1	3.3	.9	.5	.0	2.7	81.3	
	TOT %	.2	.6	1.3	38.0	34.1	3.3	.9	.5	.0	2.7	81.3	
TOT OBS													1198
TOT PCT													
		.2	.6	1.3	44.3	40.9	4.6	.9	.6	.0	5.6	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.1	.1	.0	.0	.0	.0	1.3	1.5	
	4-10	.0	.0	.0	.4	.6	.0	.0	.0	.0	.0	1.0	
	11-21	.0	.0	*	.0	.0	.0	.0	.0	.0	.0	.1	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	*	.5	.7	.0	.0	.0	.0	1.3	2.6	
1/2<1	0-3	.0	.0	.0	.1	.0	.0	.0	.0	.0	.3	.3	
	4-10	*	.0	.1	.2	.3	.1	.0	*	.0	.0	.7	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	*	.0	.1	.3	.3	.1	.0	*	.0	.3	1.0	
1<2	0-3	.0	.0	.0	.1	.1	.0	.0	.0	.0	.1	.3	
	4-10	.0	.1	.0	.2	.1	.0	.0	.0	.0	.0	.5	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.1	.0	.3	.2	.0	.0	.0	.0	.1	.8	
2<5	0-3	.0	*	.1	.1	.2	.1	.0	.0	.0	1.0	1.5	
	4-10	.0	.0	.1	.3	.7	.3	.0	.0	.0	.0	1.3	
	11-21	.0	.1	.0	.2	*	.0	.0	.0	.0	.0	.3	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.2	.2	.6	.9	.3	.0	.0	.0	1.0	3.1	
5<10	0-3	.0	.0	.1	.9	1.6	.3	.0	.1	.0	.9	3.8	
	4-10	.0	.2	.1	3.5	3.7	.7	.1	.1	.0	.0	8.4	
	11-21	.0	.0	.1	.9	1.0	.1	.0	.0	.0	.0	2.1	
	22+	.0	.0	.0	*	*	.0	.0	.0	.0	.0	.1	
	TOT %	.0	.2	.3	5.4	6.3	1.1	.1	.1	.0	.9	14.4	
10+	0-3	.1	.0	.2	1.9	3.2	.8	.4	.3	.0	3.4	10.2	
	4-10	.1	.3	.4	22.7	21.9	2.1	.3	.1	.0	.0	47.9	
	11-21	.0	.1	.4	10.2	8.4	.3	.0	.0	.0	.0	19.3	
	22+	.0	.0	.0	.2	.1	.0	.0	.1	.0	.0	.3	
	TOT %	.1	.5	1.1	34.9	33.6	3.2	.8	.5	.0	3.4	78.0	
TOT OBS													1429
TOT PCT													
		.2	1.0	1.7	41.9	42.0	4.7	.8	.6	.0	7.0	100.0	

PERIOD: (PRIMARY) 1923-1978
(OVER-ALL) 1874-1978

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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NM >4/8) AND
OCCURRENCE OF NM <5/8 BY HOUR

HOURL (GMT)	000 149	150 299	300 399	400 499	500 599	600 699	700 799	800 899	900 999	1000 1099	1100 1199	1200 1299	1300 1399	1400 1499	1500 1599	1600 1699	1700 1799	1800 1899	1900 1999	2000 2099	2100 2199	2200 2299	2300 2399	2400 2499	TOTAL OBS	NM <5/8 ANY HGT	TOTAL OBS
00003	.0	.0	.0	3.4	6.5	6.0	2.6	.0	.4	1.7	20.7	79.3	232														
06009	1.4	.0	.0	3.4	9.5	5.0	2.3	.9	.5	1.4	26.1	73.9	222														
12015	3.6	.0	2.0	6.4	14.5	8.0	2.4	2.0	.0	1.2	40.2	59.8	249														
18021	1.8	.0	.9	2.7	5.8	7.2	.9	.4	.4	.9	21.1	78.9	223														
TOT	16	0	7	42	85	61	19	8	3	12	253	673	926														
PCT	1.7	.0	.8	4.5	9.2	6.6	2.1	.9	.3	1.3	27.3	72.7	100.0														

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOURL (GMT)	<1/2	1/2-1	1-2	2-5	5-10	10+	TOTAL OBS
00003	.8	.5	1.1	2.7	15.8	79.1	374
06009	4.0	.3	.5	4.0	17.2	74.0	377
12015	4.2	1.4	1.4	3.9	19.2	74.0	361
18021	1.2	2.0	.3	2.0	9.5	85.0	347
TOT	37	15	12	46	212	1137	1459
PCT	2.5	1.0	.8	3.2	14.5	77.9	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR
CEILING HGT (FEET, NM >4/8) BY HOUR

HOURL (GMT)	<150 <500	<600 <1	<1000 <5	1000+ AND 5+	NM <5/8 AND 5+	TOTAL OBS
00003	.0	.5	6.0	16.3	77.7	215
06009	1.9	1.9	9.0	19.0	71.9	210
12015	3.8	7.1	18.4	25.1	56.5	239
18021	1.9	3.8	7.6	15.7	76.7	210
TOT	17	30	92	168	614	874
PCT	1.9	3.4	10.5	19.2	70.3	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
89/89	.0	.0	.0	.1	.2	.2	.0	.0	5	.4
85/84	.0	.0	.1	.0	1.2	3.0	1.6	.5	73	6.5
79/79	.0	.0	.0	.0	1.0	10.9	15.8	6.8	289	34.4
70/74	.0	.0	.0	.0	.2	1.8	17.5	23.8	489	43.3
63/69	.0	.0	.0	.0	.0	.4	1.7	12.8	168	14.9
60/64	.0	.0	.0	.0	.0	.0	.2	.4	6	.5
TOTAL	0	0	1	1	29	183	415	501	1130	100.0
PCT	.0	.0	.1	.1	2.6	16.2	36.7	44.3		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
89/89	.0	.0	.0	.3	.2	.0	.0	.0	.0	.0
85/84	.1	.1	.2	3.7	2.1	.2	.1	.0	.0	.0
79/79	.2	.3	.8	19.4	11.4	1.4	.2	.1	.0	.4
70/74	.0	.6	.4	19.1	18.3	1.7	.5	.2	.0	2.4
63/69	.0	.0	.3	3.5	8.0	.7	.1	.2	.0	2.0
60/64	.0	.0	.0	.2	.1	.1	.0	.0	.0	.1
TOTAL	.4	1.0	1.8	46.3	40.0	4.1	.9	.5	.0	5.0

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOURL (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	85	83	80	74	68	55	64	73.4	576
06009	82	79	77	71	65	63	59	70.9	731
12015	90	82	79	72	66	64	62	72.3	534
18021	88	84	82	76	69	66	64	76.0	637
TOT	90	83	80	73	66	64	59	73.1	2478

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOURL (GMT)	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	.0	1.7	13.2	39.6	45.5	87	303		
06009	.0	.0	.0	9.6	34.2	56.3	89	272		
12015	.0	.3	.6	10.6	36.0	52.4	88	311		
18021	.0	.4	7.9	31.8	39.7	24.2	82	277		
TOT	0	2	29	187	424	521	87	1163		

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TABLE 17

PCT FRQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	61 64	65 68	69 72	73 76	77 80	81 84	85 88	TOT	W FOG	NO FOG
20/22	.0	.0	.0	.1	.0	.0	.0	1	.0	.1
17/19	.0	.0	.0	.0	.0	.1	.0	1	.0	.1
14/16	.0	.0	.0	.1	.2	.1	.0	4	.0	.4
11/13	.0	.2	.3	.3	.1	.7	.2	18	.0	1.7
9/10	.0	.3	.7	.4	.6	.4	.0	25	.3	2.0
7/8	.0	.2	.7	.7	.8	.4	.0	30	.4	2.4
6	.0	.1	.7	.8	.8	.4	.4	34	.3	2.9
5	.0	.2	1.4	1.0	1.3	.4	.0	46	.1	4.2
4	.0	.5	2.0	1.4	1.4	.7	.0	63	.2	5.7
3	.0	.9	1.5	1.7	1.2	.7	.1	66	.1	6.0
2	.1	2.0	3.5	3.3	3.2	.8	.0	140	1.0	12.0
1	.0	1.8	4.2	5.2	2.1	.3	.0	146	1.3	12.3
0	.1	1.8	5.5	4.9	4.2	.0	.0	177	.3	16.2
-1	.0	.8	2.5	3.9	1.9	.0	.0	119	.3	10.8
-2	.2	.7	1.9	4.5	1.3	.0	.0	91	.3	8.2
-3	.1	.4	1.0	2.0	.7	.0	.0	46	.1	4.2
-4	.2	.6	.4	1.2	.4	.0	.0	29	.8	1.9
-5	.0	.0	.7	1.0	.6	.0	.0	24	.1	2.1
-6	.0	.2	.2	.3	.1	.0	.0	8	.1	.7
-7/-8	.0	.1	.2	.2	.2	.0	.0	7	.0	.7
TOTAL	7		293		226		7	1075	60	1015
PCT	.7	114	27.3	35.0	21.0	4.8	.7	100.0	5.6	94.4

PERIOD: (OVER-ALL) 1963-1978

TABLE 18

PCT FRQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.6	.0	.0	.0	.0	.0	.6	.1	2.4	.2	.0	.0	.0	2.8
1-2	.0	.2	.2	.0	.0	.0	.4	1.1	11.7	5.8	.0	.0	.0	18.5
3-4	.0	.2	.7	.0	.0	.0	.9	.3	7.4	8.1	.0	.0	.0	15.8
5-6	.0	.2	.0	.0	.0	.0	.2	.0	1.7	5.2	.3	.0	.0	7.2
7	.0	.0	.0	.0	.0	.0	.0	.0	.3	.2	.0	.0	.0	.8
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	.0	.0	.0	.3
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.6	.7	.8	.0	.0	.0	2.1	1.3	23.8	19.8	.3	.0	.0	43.4

PERIOD: (OVER-ALL) 1963-1978

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TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	1.5	3.0	.0	.0	.0	.0	4.6	.1	.5	.2	.0	.0	.0	.8
1-2	.8	14.3	3.7	.0	.0	.0	18.8	.5	1.8	.5	.0	.0	.0	2.8
3-4	.2	4.1	5.5	.0	.0	.0	9.8	.0	.3	.2	.0	.0	.0	.5
5-6	.0	1.8	4.3	.4	.0	.0	6.6	.0	.0	.0	.0	.0	.0	.0
7	.0	.7	.2	.0	.0	.0	.9	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.2	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	2.5	23.9	14.0	.4	.0	.0	40.9	.5	2.6	.9	.0	.0	.0	4.0

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.2	.0	.0	.0	.0	.0	.2	.2	.0	.0	.0	.0	.0	.2	
1-2	.0	.2	.0	.0	.0	.0	.2	.2	.0	.0	.0	.0	.0	.2	
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.2	
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.2	.2	.0	.0	.0	.0	.4	.5	.2	.0	.0	.0	.0	.7	93.6

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	10.2	5.8	.5	.0	.0	.0	16.5	
1-2	3.0	27.9	10.0	.0	.0	.0	40.9	
3-4	.5	12.1	14.2	.0	.0	.0	26.7	
5-6	.0	3.7	9.3	.7	.0	.0	13.7	
7	.0	1.2	.5	.0	.0	.0	1.6	
8-9	.0	.0	.5	.0	.0	.0	.5	
10-11	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	13.7	50.7	34.9	.7	.0	.0	100.0	430

PERIOD: (OVER-ALL) 1949-1978

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
4-6	2.8	8.9	18.8	8.1	1.1	.1	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	298	3
6-7	.0	2.6	8.1	10.8	3.6	.7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	191	4
8-9	.0	1.1	3.0	3.8	3.6	.4	.8	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	95	5
10-11	.0	1.7	1.1	1.6	2.4	.8	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	57	5
12-13	.0	.0	1.3	.7	.1	.3	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	20	5
13-15	.0	.0	.0	.3	.4	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	6	7
INDRY	3.2	2.2	3.6	.7	.5	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	77	2
TOTAL	45	122	267	192	88	18	10	1	1	0	0	0	0	0	0	0	0	0	0	744	4
PCT	6.0	16.4	35.9	25.8	11.8	2.4	1.3	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	

PERIOD: (PRIMARY) 1923-1978
(OVER-ALL) 1853-1978

MARCH

AREA 0032 LIMA
11.45 78.4W

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FOG PCPN	FOG WQ PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
N	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
NE	.0	.0	23.5	.0	.0	.0	.0	23.5	.0	.0	.0	.0	.0	.0	76.5
E	.0	.0	2.4	.0	.0	.0	.0	2.4	.0	.0	.0	.0	2.4	.0	95.5
SE	.1	.1	.4	.0	.0	.0	.0	.7	.1	.0	2.3	.0	1.3	.0	95.5
S	.2	.0	.4	.0	.0	.0	.0	.4	.0	.2	3.1	.0	3.6	.0	92.8
SW	.0	.0	.5	.0	.0	.0	.0	.5	.0	1.8	5.4	.0	3.2	.0	89.7
W	.0	13.8	.0	.0	.0	.0	.0	13.8	.0	.0	.0	.0	.0	.0	86.2
NW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	4.2	.0	.0	.0	.0	.0	.0	4.2	.0	.0	25.0	.0	12.5	.0	58.3
TOT PCT	.2	.1	.5	.0	.0	.0	.0	.8	.1	.1	3.0	.0	2.5	.0	93.5
TOT OBS:	1485														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FOG PCPN	FOG WQ PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
00003	.5	.0	.5	.0	.0	.0	.0	.8	.3	.0	1.3	.0	1.3	.0	96.0
06009	.0	.6	.6	.0	.0	.0	.0	1.1	.0	.6	2.6	.0	2.8	.0	92.9
12015	.3	.0	.8	.0	.0	.0	.0	1.0	.0	.0	6.0	.0	2.9	.0	90.1
18021	.0	.0	.3	.0	.0	.0	.0	.3	.0	.0	2.1	.0	2.6	.0	95.1
TOT PCT	.2	.1	.5	.0	.0	.0	.0	.8	.1	.1	3.0	.0	2.4	.0	93.5
TOT OBS:	1516														

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							48+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)						
	0-3	4-10	11-21	22-33	34-47		00					03	06	09	12	15	18	21
N	.2	.1	.1	.0	.0	.0	.0	.4	6.6	.5	.0	.3	.7	.6	.0	.0	.5	
NE	.1	.2	.1	.0	.0	.0	.0	.3	10.5	.4	.0	.2	.5	.6	.0	.0	.0	
E	.6	1.8	1.0	.0	.0	.0	.0	3.4	8.5	2.1	3.2	2.7	4.9	4.0	4.5	4.5	2.4	
SE	3.5	24.1	19.0	.3	.0	.0	.0	47.8	9.9	47.0	60.1	49.1	47.0	49.1	58.5	47.5	39.5	
S	3.5	24.2	12.1	.0	.0	.0	.0	39.9	8.8	43.8	30.3	38.8	37.5	36.4	33.0	40.2	47.4	
SW	.8	2.7	.5	.0	.0	.0	.0	4.0	6.8	3.2	4.3	4.3	3.1	3.2	3.0	4.8	6.4	
W	.1	.4	.0	.0	.0	.0	.0	.6	5.6	.3	2.1	.7	1.0	.3	.0	.6	1.0	
NW	.2	.1	.0	.0	.0	.0	.0	.4	4.9	.2	.0	.2	.8	.5	.0	.6	.0	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	3.3							3.3	.0	2.7	.0	3.7	4.5	5.4	.0	1.6	.9	
TOT OBS	343	1551	935	9	0	0	2838	3.3	8.9	593	49	574	266	539	50	561	.8	
TOT PCT	12.1	54.7	32.9	.3	.0	.0		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)				41+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)			
	0-6	7-16	17-27	28-40					00 03	06 09	12 15	18 21
N	.2	.1	.0	.0	.0	.4	6.6	.4	.4	.6	.1	
NE	.1	.2	.1	.0	.0	.3	10.5	.4	.3	.6	.2	
E	1.4	1.6	.3	.0	.0	3.4	8.5	2.1	3.4	4.0	3.9	
SE	12.1	32.2	3.5	.0	.0	47.8	9.9	48.0	48.5	49.9	45.4	
S	13.9	24.4	1.7	.0	.0	39.9	8.8	42.8	38.4	36.1	42.1	
SW	2.3	1.7	.0	.0	.0	4.0	6.8	3.2	3.9	3.2	3.2	
W	.6	.1	.0	.0	.0	.6	5.6	.3	.8	.3	.7	
NW	.2	.1	.0	.0	.0	.4	4.9	.2	.4	.4	.4	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	3.3					3.3	.0	2.7	.0	4.9	2.0	
TOT OBS	943	1715	160	0	0	2838	8.9	640	640	589	560	
TOT PCT	33.9	60.4	5.6	0	0		100.0	100.0	100.0	100.0	100.0	

PERIOD: (PRIMARY) 1923-1978
(OVER-ALL) 1855-1978

MARCH

AREA 0032 LIMA
11.4S 78.4W

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)			48+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47				
0000Z	2.5	7.5	56.1	33.9	.0	.0	.0	9.0	100.0	640
0600Z	3.9	11.2	54.5	29.8	.6	.0	.0	8.5	100.0	840
1200Z	4.9	10.2	53.5	31.1	.3	.0	.0	8.6	100.0	589
1800Z	2.0	6.2	54.5	37.1	.3	.0	.0	9.5	100.0	769
TOT	93	250	1551	935	9	0	0	8.9		2838
PCT	3.3	8.8	54.7	32.9	.3	.0	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	# 8 OBSCH	TOTAL OBS	MEAN CLOUD COVER
N	.2	.1	.3	.1		4.6
NE	.5	.3	.1	.0		4.1
E	.7	.9	.9	.2		3.9
SE	13.0	13.7	18.2	4.0		4.3
S	11.0	9.9	14.2	5.1		4.3
SW	1.3	.7	.8	.2		3.4
W	.1	.0	.0	.3		5.5
NW	.0	.0	.0	.0		5.3
VAR	.0	.0	.0	.0		.0
CALM	.4	.1	.9	.4		5.2
TOT OBS	300	287	395	136	1118	4.3
TOT PCT	26.8	25.7	35.3	12.2	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8)
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

000	150	300	600	1000	2000	3500	5000	6500	8000+	NH <5/8	TOTAL
149	299	599	999	1999	3499	4999	6499	7999		ANY HGT	OBS
.0	.0	.1	.0	.1	.0	.0	.0	.0	.0	.5	
.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.3	
.0	.0	.0	.2	.3	.0	.1	.0	.0	.0	2.0	
.3	.3	1.0	2.7	4.5	2.7	1.5	.2	.1	.6	37.1	
.2	.1	.4	2.6	3.8	1.7	.7	.2	.3	.9	29.3	
.1	.0	.0	.0	.2	.0	.2	.0	.0	.0	2.5	
.0	.0	.0	.0	.2	.1	.0	.0	.0	.0	.1	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
.1	.0	.0	.2	.1	.2	.0	.2	.0	.2	.8	
.8	.4	1.6	6.3	10.4	5.3	2.8	.6	.5	1.9	81.2	
.7	.4	1.4	5.6	9.3	4.7	2.5	.5	.4	1.7	72.6	1118
											100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE
OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)							
	= OR >10	= OR >5	= OR >2	= OR >1	= OR >1/2	= OR >1/4	= OR >50YD	= OR >0
= OR >4500	1.4	2.0	2.0	2.0	2.0	2.0	2.0	2.0
= OR >3000	1.8	2.5	2.6	2.6	2.6	2.6	2.6	2.6
= OR >3500	3.7	4.9	5.2	5.2	5.2	5.2	5.2	5.2
= OR >2000	7.0	9.5	9.9	9.9	9.9	9.9	9.9	9.9
= OR >1000	15.3	18.7	19.2	19.3	19.3	19.3	19.3	19.3
= OR >600	19.8	24.2	24.9	25.0	25.0	25.0	25.0	25.0
= OR >300	20.9	25.7	26.3	26.4	26.4	26.4	26.4	26.4
= OR >150	21.0	26.0	26.6	26.7	26.7	26.7	26.7	26.7
= OR >0	21.0	26.1	26.8	26.9	26.9	27.0	27.3	27.4
TOTAL	236	294	302	303	303	304	307	309

TOTAL NUMBER OF OBS 1126

PCT FREQ NH <5/8 72.6

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8 OBSCD	TOTAL OBS
18.6	13.0	15.6	14.4	9.9	6.0	8.4	5.4	9.3	1207

PERIOD: (PRIMARY) 1923-1974
(OVER-ALL) 1855-1978

MARCH

AREA 0032 LIMA
11.45 78.4W

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NN PCP	.0	.0	.0	.3	.4	.1	.0	.0	.0	.1	1.0	.0
	TOT %	.0	.0	.0	.3	.4	.1	.0	.0	.0	.1	1.0	.0
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NN PCP	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1	.1	.0
	TOT %	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1	.1	.0
1<2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NN PCP	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.2	.0
	TOT %	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.2	.0
2<5	PCP	.0	.0	.0	.1	.1	.0	.1	.0	.0	.0	.2	.0
	NN PCP	.0	.0	.1	.4	.6	.1	.0	.0	.0	.2	1.4	.0
	TOT %	.0	.0	.1	.5	.7	.2	.1	.0	.0	.2	1.6	.0
5<10	PCP	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1	.1	.0
	NN PCP	.2	.1	.4	7.5	7.2	.6	.1	.0	.0	.5	16.6	.0
	TOT %	.2	.1	.4	7.5	7.2	.6	.1	.0	.0	.5	16.6	.0
10+	PCP	.0	.1	.1	.3	.1	.0	.0	.0	.0	.0	.5	.0
	NN PCP	.3	.1	2.3	40.9	32.4	2.8	.3	.0	.0	.7	79.8	.0
	TOT %	.3	.2	2.4	41.1	32.4	2.8	.3	.0	.0	.7	80.3	.0
TOT OBS													1468
TOT PCT		.5	.3	2.9	49.5	40.9	3.7	.5	.1	.0	1.6	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.1	.1	.0	.0	.0	.0	.2	.4	.0
	4-10	.0	.0	.0	.3	.4	.1	.0	.0	.0	.0	.7	.0
	11-21	.0	.0	.0	.1	.1	.0	.0	.0	.0	.0	.2	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.5	.6	.1	.0	.0	.0	.2	1.3	.0
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1	.0
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	11-21	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.1	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1	.1	.0
1<2	0-3	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.1	.0
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	11-21	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.2	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.1	.2	.0	.0	.0	.0	.0	.2	.0
2<5	0-3	.0	.0	.0	.1	.1	.0	.0	.0	.0	.2	.4	.0
	4-10	.0	.0	.0	.3	.5	.2	.0	.0	.0	.0	1.0	.0
	11-21	.0	.0	.0	.0	.3	.0	.1	.0	.0	.0	.3	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.5	.8	.2	.1	.0	.0	.2	1.8	.0
5<10	0-3	.1	.0	.0	.4	.7	.0	.1	.0	.0	.7	2.1	.0
	4-10	.1	.0	.3	3.6	4.1	.6	.1	.0	.0	.0	8.7	.0
	11-21	.0	.1	.1	3.2	2.5	.2	.0	.0	.0	.0	6.1	.0
	22+	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0
	TOT %	.2	.1	.4	7.3	7.3	.8	.1	.0	.0	.7	16.8	.0
10+	0-3	.0	.0	.2	1.4	2.1	.8	.0	.0	.0	1.2	5.8	.0
	4-10	.1	.1	1.2	19.1	19.5	2.1	.3	.0	.0	.0	42.4	.0
	11-21	.1	.1	.8	18.0	12.2	.3	.0	.0	.0	.0	31.5	.0
	22+	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.1	.0
	TOT %	.3	.1	2.2	38.6	33.8	3.2	.3	.0	.0	1.2	79.7	.0
TOT OBS													1751
TOT PCT		.4	.2	2.6	47.0	42.6	4.2	.5	.0	.0	2.4	100.0	

MARCH

PERIOD: (PRIMARY) 1923-1978
(OVER-ALL) 1855-1978AREA 0032 LIMA
11.45 78.4W

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NM >4/8) AND
OCCURRENCE OF NM <5/8 BY HOUR

HOUR (GMT)	000	150	300	450	600	750	900	1050	1200	1350	1500	1650	1800	1950	TOTAL	NH <5/8 ANY MGT	TOTAL OBS
00003	.7	.0	1.3	3.9	6.6	3.3	.7	.3	.3	1.6	18.7	81.3	305				
06009	.4	.8	1.2	5.4	9.2	4.2	5.8	.4	.8	1.9	30.0	70.0	260				
12015	1.0	.7	2.3	7.6	10.2	7.9	2.3	1.0	.3	1.7	35.0	65.0	303				
18021	.7	.0	.7	4.9	10.2	2.6	1.6	.3	.3	1.3	22.6	77.4	305				
TOT	8	4	16	64	106	53	29	6	5	19	310	863	1173				
PCT	.7	.3	1.4	5.5	9.0	4.5	2.5	.5	.4	1.6	26.4	73.6	100.0				

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.7	.0	.5	2.0	16.2	80.6	444
06009	1.5	.0	.4	1.3	18.6	78.1	452
12015	2.4	.2	.0	2.7	17.9	76.8	414
18021	1.1	.2	.0	1.5	14.7	82.5	457
TOT	25	2	4	33	297	1406	1767
PCT	1.4	.1	.2	1.9	16.8	79.6	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR
CEILING MGT (FEET, NM >4/8), BY HOUR

HOUR (GMT)	<150 <500D	<600 <1	<1000 <5	1000+ AND 5+	NH <5/8 AND 5+	TOTAL OBS
00003	.7	2.4	7.3	13.3	79.4	286
06009	.4	2.4	9.1	21.7	69.3	254
12015	1.0	4.1	13.2	23.4	63.4	295
18021	.7	1.4	7.6	16.8	75.6	291
TOT	8	29	105	211	810	1126
PCT	.7	2.6	9.3	18.7	71.9	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
85/89	.0	.0	.0	.2	.2	.2	.0	.2	8	7.6
80/84	.0	.0	.0	.1	1.4	4.5	.8	.7	96	7.5
75/79	.0	.0	.0	.1	.9	14.1	14.5	4.4	436	33.9
70/74	.0	.0	.0	.0	.2	3.6	20.1	18.7	546	42.5
65/69	.0	.0	.0	.0	.0	.5	2.5	11.8	189	14.7
60/64	.0	.0	.0	.0	.0	.0	.1	.7	10	.8
TOTAL	0	0	0	4	34	293	487	467	1285	100.0
PCT	.0	.0	.0	.3	2.6	22.8	37.9	36.3		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.0	.0	.1	.4	.1	.0	.0	.0	.0	.0
.0	.2	.8	4.3	1.9	.2	.0	.0	.0	.0
.3	.2	1.2	19.5	11.2	1.3	.2	.0	.0	.0
.3	.1	.9	19.3	19.5	1.6	.1	.1	.0	.7
.0	.0	.3	5.1	7.7	.8	.1	.0	.0	.7
.0	.0	.2	.2	.4	.0	.0	.0	.0	.1
.6	.4	3.4	48.9	40.7	4.0	.5	.1	.0	1.5

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	84	80	79	73	67	66	57	73.1	642
06009	81	78	77	71	65	63	61	70.9	845
12015	84	81	79	72	66	64	60	72.1	599
18021	89	85	82	76	68	66	61	75.6	708
TOT	89	83	80	73	66	64	57	72.9	2794

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	.0	.6	23.3	42.7	33.4	86	335
06009	.0	.0	1.0	8.0	38.9	52.1	89	311
12015	.0	.0	2.2	16.3	36.0	45.5	87	325
18021	.0	1.2	7.0	41.6	33.1	17.0	81	329
TOT	0	4	35	293	490	478	85	1300

PERIOD: (PRIMARY) 1924-1978
(OVER-ALL) 1854-1978

MARCH

AREA 0032 LIMA
11.45 78.4W

TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	57 60	61 64	65 68	69 72	73 76	77 80	81 84	85 88	TOT	W FOG	WD FOG
20/22	.0	.0	.0	.0	.0	.1	.0		1	.0	.1
14/16	.0	.0	.0	.1	.0	.3	.1		6	.0	.4
11/13	.0	.0	.0	.1	.1	.3	.1		9	.0	.7
9/10	.0	.0	.1	.2	.3	.1	.2		14	.0	1.0
7/8	.0	.0	.2	.1	.9	.7	.2		31	.1	2.2
6	.0	.0	.2	.7	.8	.5	.7		41	.1	2.8
5	.0	.1	.5	.9	.9	1.2	.7		63	.1	4.3
4	.0	.0	.4	2.1	1.5	1.3	.1		78	.3	5.4
3	.0	.1	.6	2.0	1.8	1.1	.4		81	.2	5.7
2	.0	.0	2.2	3.0	2.1	1.6	.9		134	.6	9.2
1	.0	.1	1.8	4.6	4.5	2.6	.1		187	.5	13.1
0	.1	.1	2.3	4.4	5.0	3.0	.5		210	.6	14.8
-1	.0	.1	.8	3.9	3.9	2.8	.4		164	.1	11.9
-2	.0	.0	.3	1.9	4.5	3.0	.1		134	.0	9.8
-3	.0	.0	.4	1.2	3.3	1.5	.1		90	.1	6.4
-4	.0	.1	.3	.9	2.0	.7	.0		54	.1	3.9
-5	.0	.0	.0	.9	1.3	.8	.0		41	.1	2.9
-6	.0	.0	.2	.7	.6	.0	.0		20	.1	1.4
-7/-8	.0	.0	.1	.4	.1	.0	.0		9	.0	.7
-9/-10	.0	.1	.0	.1	.0	.0	.0		2	.0	.1
TOTAL	1	9	144	385	289	71	8		1369	41	1328
PCT	.1	.7	10.5	28.1	33.7	21.1	5.2	.6	100.0	3.0	97.0

PERIOD: (OVER-ALL) 1963-1978

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
41	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.2	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.1	.0	.0	.0	.0	.1	.0	.0	.2	.0	.0	.0	.2
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.2
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.2
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.3	.0	.0	.0	.0	.3	.0	.0	.4	.2	.0	.0	.6

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
41	.1	.1	.0	.0	.0	.0	.3	.6	2.0	.9	.0	.0	.0	3.6
1-2	.2	1.0	.0	.0	.0	.0	1.1	.4	11.3	3.9	.0	.0	.0	15.8
3-4	.0	.7	.8	.0	.0	.0	1.5	.0	8.0	13.3	.2	.0	.0	21.5
5-6	.0	.1	.7	.0	.0	.0	.9	.0	1.0	7.7	.0	.0	.0	8.6
7	.0	.0	.0	.0	.0	.0	.0	.0	.3	1.3	.0	.0	.0	1.9
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.1
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.3	2.0	1.5	.0	.0	.0	3.8	1.0	23.1	27.2	.2	.0	.0	51.5

PERIOD: (OVER-ALL) 1963-1978

MARCH

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TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.7	2.7	.0	.0	.0	.0	3.4	.2	.2	.0	.0	.0	.0	.4	
1-2	.5	12.1	4.1	.0	.0	.0	16.7	.0	.7	.4	.0	.0	.0	1.1	
3-4	.1	5.4	8.3	.0	.0	.0	13.8	.0	.2	.2	.0	.0	.0	.7	
5-6	.0	1.1	3.0	.0	.0	.0	4.1	.0	.2	.1	.0	.0	.0	.3	
7	.0	.2	.5	.0	.0	.0	.7	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.3	.0	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
12	.0	.1	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	1.4	21.5	16.1	.0	.0	.0	39.0	.2	1.5	.7	.0	.0	.0	2.5	

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1-2	.0	.1	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.0	.1	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	97.8

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	4.1	5.0	.9	.0	.0	.0	10.1	
1-2	1.6	25.5	8.3	.0	.0	.0	35.4	
3-4	.2	14.6	22.5	.2	.0	.0	37.4	
5-6	.0	2.3	11.3	.2	.0	.0	13.8	
7	.0	.7	2.0	.0	.0	.0	2.7	
8-9	.0	.0	.4	.0	.0	.0	.4	
10-11	.0	.0	.0	.0	.0	.0	.0	
12	.0	.2	.0	.0	.0	.0	.2	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	5.9	48.4	45.3	.4	.0	.0	100.0	556

PERIOD: (OVER-ALL) 1949-1978

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	1.5	11.1	17.8	7.3	1.4	.1	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	366	3
6-7	.0	1.2	11.1	10.3	4.8	1.6	.9	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	282	6
8-9	.0	.3	2.9	4.6	2.8	1.5	.9	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	129	8
10-11	.0	.7	1.4	2.7	.6	.9	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	61	9
12-13	.0	.0	1.0	.5	.7	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	29	8
>13	.0	.0	.0	.3	.4	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	9	7
INDEF	1.1	1.6	3.0	1.0	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	67	3
TOTAL	24	140	347	249	106	44	16	7	2	0	0	0	0	0	0	0	0	0	0	985	4
PCT	2.6	15.0	37.1	26.6	11.3	4.7	1.7	.7	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	

PERIOD: (PRIMARY) 1922=1977
(OVER-ALL) 1872=1977

APRIL

AREA 0032 LIMA
11.45 78.2W

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA									
	RAIN	RAIN SHMR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THOR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	BLWG DUST	SPRAY	NO SIG	WEA
N	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
NE	.0	20.0	.0	.0	.0	.0	.0	20.0	.0	.0	.0	.0	.0	.0	.0	.0	80.0
E	.0	.0	.0	.0	.0	.0	.0	.0	2.4	.0	.0	.0	.0	6.3	.0	.0	91.3
SE	.3	.2	.3	.0	.0	.0	.0	.8	.5	.2	2.1	.5	2.6	.0	.0	.0	93.5
S	.0	.1	.0	.0	.0	.0	.0	.1	.0	.1	3.3	.0	4.4	.0	.0	.0	92.0
SW	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.7	4.4	2.2	7.7	.0	.0	.0	83.0
W	.0	.0	.0	.0	.0	.0	.0	.0	.0	8.7	.0	.0	8.7	.0	.0	.0	82.6
NW	.0	.0	.0	.0	.0	.0	.0	.0	.0	11.4	.0	.0	.0	.0	.0	.0	88.6
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	10.7	3.6	.0	3.6	.0	.0	.0	82.1
TOT PCT	.2							.5	.3	.6	2.6	.3	3.6	.0	.0	.0	92.1
TOT OBS:	1328																

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA									
	RAIN	RAIN SHMR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THOR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	BLWG DUST	SPRAY	NO SIG	WEA
00003	.3	.3	.0	.0	.0	.0	.0	.6	.0	.9	3.0	.0	2.1	.0	.0	.0	93.6
06009	.3	.0	.3	.0	.0	.0	.0	.6	.0	1.5	2.1	.3	2.1	.0	.0	.0	93.4
12015	.0	.6	.3	.0	.0	.0	.0	.9	.9	.0	3.6	.9	5.0	.0	.0	.0	88.8
18021	.0	.0	.0	.0	.0	.0	.0	.0	.3	.0	2.0	.6	4.8	.0	.0	.0	92.4
TOT PCT	.1							.5	.3	.6	2.7	.4	3.5	.0	.0	.0	92.0
TOT OBS:	1353																

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	0-3	WIND SPEED (KNOTS)						48+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)						
		4-10	11-21	22-33	34-47	00	03					06	09	12	15	18	21	
N	.2	.2	.1	.0	.0	.0		.5	3.4	.4	.0	.6	2.0	.2	.0	.0	.3	
NE	.1	.2	.2	.0	.0	.0		.5	10.5	.6	.0	.2	.8	.7	.0	.4	.3	
E	.3	1.1	.9	.1	.0	.0		2.4	9.8	1.8	7.2	2.3	.5	3.4	2.6	2.5	2.3	
SE	2.9	25.9	20.5	.3	.0	.0		49.6	10.1	45.9	60.5	50.5	51.7	52.4	48.0	50.8	41.5	
S	2.8	25.0	12.0	.1	.0	.0		37.9	9.1	42.7	28.9	38.6	31.5	36.9	36.2	36.6	39.9	
SW	.6	3.0	.5	.0	.0	.0		4.1	6.9	3.9	3.3	3.5	3.6	2.4	13.2	4.8	7.8	
W	.3	.6	.1	.0	.0	.0		1.0	5.2	1.0	.0	.8	1.0	.7	.0	1.4	2.0	
NW	.2	.2	.2	.0	.0	.0		.5	6.5	.6	.0	.7	.2	.4	.0	.6	.9	
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	3.6							3.6	.0	3.2	.0	3.0	8.6	2.9	.0	2.9	8.1	
TOT OBS	275	1351	854	13	0	0		2493	9.1		504	38	498	244	480	38	515	176
TOT PCT	11.0	54.2	34.3	.5	.0	.0			100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)					TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)				
	0-6	7-16	17-27	28-40	41+				00	06	12	18	21
N	.3	.1	.0	.0	.0	.0	.5	3.4	.4	1.1	.1	.1	
NE	.2	.2	.1	.0	.0	.0	.6	10.5	.6	.4	.6	.4	
E	.7	1.5	.2	.0	.0	.0	2.4	9.8	2.2	1.7	3.3	2.5	
SE	12.3	33.1	4.1	.0	.0	.0	49.6	10.1	46.9	50.9	52.1	48.4	
S	12.5	23.2	2.2	.0	.0	.0	37.9	9.1	41.7	36.2	36.9	37.4	
SW	2.2	1.8	.1	.0	.0	.0	4.1	6.9	3.8	3.5	3.2	5.5	
W	.8	.2	.0	.0	.0	.0	1.0	5.2	.9	.8	.6	1.6	
NW	.4	.2	.0	.0	.0	.0	.5	6.5	.6	.5	.4	.7	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	3.6						3.6	.0	3.0	4.9	2.7	3.5	
TOT OBS	823	1302	167	1	0	2493	9.1		542	742	518	691	
TOT PCT	33.0	60.2	6.7	.0	.0	100.0			100.0	100.0	100.0	100.0	

PERIOD: (PRIMARY) 1922-1977
(OVER-ALL) 1872-1977

APRIL

AREA 0032 LIMA
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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)			48+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-23	24-47				
0000	3.0	6.8	34.4	35.1	.7	.0	.0	9.5	100.0	542
0600	4.9	8.2	37.0	29.5	.4	.0	.0	8.6	100.0	742
1200	2.7	7.1	32.1	37.8	.2	.0	.0	9.4	100.0	518
1800	2.5	7.2	32.5	36.0	.7	.0	.0	9.3	100.0	691
TOT	90	183	1331	894	13	0	0	9.1		2493
PCT	3.6	7.4	54.2	34.3	.5	.0	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	.0	.1	.0	.0		3.0
NE	.0	.2	.1	.1		5.2
E	.6	.4	.9	.2		4.1
SE	17.8	8.6	15.5	9.7		4.2
S	17.7	7.8	9.3	6.3		3.6
SW	1.1	.5	.4	.2		3.2
W	.2	.2	.3	.2		4.7
NW	.1	.1	.0	.0		2.1
VAR	.0	.0	.0	.0		.0
CALM	.2	.4	.2	.3		4.7
TOT OBS	362	177	257	164	960	4.0
TOT PCT	37.7	18.4	26.8	17.1	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH > 4/8)
AND OCCURRENCE OF NH < 5/8 BY WIND DIRECTION

000	150	300	600	1000	2000	3500	5000	6500	8000+	NH < 5/8	TOTAL
149	299	599	999	1999	3499	4999	6499	7999		ANY MGT	OBS
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	
.0	.0	.0	.1	.1	.0	.0	.0	.0	.0	.2	
.0	.0	.1	.2	.1	.4	.1	.0	.0	.0	1.3	
.2	.1	1.2	3.4	6.4	4.8	.9	.8	.3	.8	32.7	
.0	.1	.6	1.8	3.4	3.0	.4	.7	.2	.9	30.1	
.0	.0	.0	.0	.1	.1	.1	.0	.0	.0	2.0	
.0	.0	.0	.2	.2	.1	.0	.0	.0	.0	.5	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
.0	.0	.0	.1	.2	.1	.0	.0	.0	.0	.7	
.2	.2	.8	.56	1.00	.81	.14	.5	.17	.651	960	
.2	.2	1.9	5.8	10.4	8.4	1.5	1.5	.5	1.8	67.8	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE
OF CEILING HEIGHT (NH > 4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)								
	= OR >10	= OR >5	= OR >2	= OR >1	= OR >1/2	= OR >1/4	= OR >50YD	= OR >0	
= NR >6500	1.1	2.1	2.3	2.3	2.3	2.3	2.3	2.3	
= NR >5000	2.1	3.4	3.6	3.6	3.6	3.6	3.6	3.6	
= NR >3500	3.1	4.8	5.0	5.0	5.0	5.0	5.0	5.0	
= NR >2000	9.2	13.1	13.4	13.4	13.4	13.4	13.6	13.6	
= NR >1000	17.7	23.4	23.9	23.9	23.9	23.9	24.0	24.0	
= NR >600	21.8	29.0	29.7	29.7	29.7	29.7	29.8	29.8	
= NR >300	22.5	30.6	31.5	31.5	31.5	31.5	31.6	31.6	
= NR >150	22.5	30.7	31.6	31.6	31.6	31.7	31.8	31.8	
= NR >0	22.5	30.7	31.6	31.6	31.6	31.8	31.9	32.0	
TOTAL	219	299	308	308	308	310	311	312	

TOTAL NUMBER OF OBS: 974

PCT FREQ NH < 5/8: 68.0

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	OBSCD	TOTAL OBS
23.1	14.5	12.2	10.0	7.0	5.6	6.3	7.0	14.1	.2	1038

PERIOD: (PRIMARY) 1922-1977
(OVER-ALL) 1872-1977

APRIL

AREA 0032 LIMA
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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.5	.4	*	.0	.0	.0	.0	.0	.9
	TOT %	.0	.0	.0	.5	.4	*	.0	.0	.0	.0	.0	.9
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.2	.1	.1	.0	.0	.0	.0	.0	.3
	TOT %	.0	.0	.0	.2	.1	.1	.0	.0	.0	.0	.0	.3
1<2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1
	TOT %	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1
2<5	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.1	.5	1.4	.1	.1	.1	.0	.2	.2	2.4
	TOT %	.0	.0	.1	.5	1.4	.1	.1	.1	.0	.2	.2	2.4
5<10	PCP	.0	.1	.0	.2	.0	.0	.0	.0	.0	.0	.0	.2
	NO PCP	.1	.2	.5	7.7	9.7	1.2	.4	.3	.0	1.2	21.3	39.6
	TOT %	.1	.2	.5	7.8	9.7	1.2	.4	.3	.0	1.2	21.5	40.0
10+	PCP	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	.2
	NO PCP	.2	.2	1.8	39.6	29.6	1.8	.4	.3	.0	.8	74.6	131.2
	TOT %	.2	.2	1.8	39.8	29.6	1.8	.4	.3	.0	.8	74.8	131.4
TOT OBS													1312
TOT PCT		.3	.4	2.4	48.9	41.0	3.3	.9	.7	.0	2.1	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.1	.1	.0	.0	.0	.0	.0	.0	.2
	4-10	.0	.0	.0	.3	.2	*	.0	.0	.0	.0	.0	.6
	11-21	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.1
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.5	.3	*	.0	.0	.0	.0	.0	.8
1/2<1	0-3	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1
	4-10	.0	.0	.0	.1	.1	.0	.0	.0	.0	.0	.0	.2
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.1	.1	.1	.0	.0	.0	.0	.0	.3
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1
	11-21	.0	.1	.0	*	*	.0	.0	.0	.0	.0	.0	.1
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.1	.0	*	*	.1	.0	.0	.0	.0	.0	.2
2<5	0-3	.0	.0	.0	.1	.0	.0	.0	.1	.0	.1	.0	.3
	4-10	.0	.0	*	.6	1.0	.1	*	.0	.0	.0	.0	1.8
	11-21	.0	.0	.0	.1	.5	.0	.0	.0	.0	.0	.0	.6
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	*	.7	1.4	.1	.1	.1	.0	.1	.0	2.7
5<10	0-3	.1	.1	.1	.6	.5	.1	.1	*	.0	1.2	2.7	5.9
	4-10	.1	.1	.3	4.3	5.9	1.0	.3	.1	.0		12.2	37.5
	11-21	.0	.1	*	2.8	2.7	.1	.1	.1	.0		5.9	32.7
	22+	.0	.0	.0	.1	.1	.0	.0	.0	.0	.0	.0	.4
	TOT %	.1	.2	.5	7.8	9.2	1.3	.5	.3	.0	1.2	21.0	74.8
10+	0-3	.1	.0	.1	1.0	1.6	.1	.1	.1	.0	1.2	4.4	15.3
	4-10	.0	.1	.8	17.4	17.4	1.3	.2	.2	.0		37.5	74.8
	11-21	.1	.1	.9	19.5	11.6	.4	.1	.1	.0		32.7	74.8
	22+	.0	.0	*	.3	*	.0	.0	.0	.0	.0	.0	.4
	TOT %	.2	.1	1.8	38.3	30.7	2.1	.4	.3	.0	1.2	75.1	153.6
TOT OBS													1536
TOT PCT		.3	.4	2.3	47.4	41.8	3.6	.9	.7	.0	2.5	100.0	

APRIL

PERIOD: (PRIMARY) 1922-1977
(OVER-ALL) 1972-1977AREA 0032 LIMA
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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NM >4/8) AND
OCCURRENCE OF NM <5/8 BY HOUR

HOUR (GMT)	000	150	300	600	1070	2000	3500	5000	6500	8000+	TOTAL	NM <5/8 ANY HGT	TOTAL OBS
00003	.4	.0	1.2	4.4	6.5	7.7	1.6	1.6	1.2	1.2	25.8	74.2	248
06009	.0	.0	1.3	4.9	8.4	10.7	1.8	.4	.9	.9	29.3	70.7	225
12015	.0	.7	3.0	8.2	16.0	9.3	1.5	2.0	.0	2.2	43.5	56.5	269
18021	.4	.0	1.5	4.5	9.0	5.6	.8	.8	.0	2.6	25.2	74.8	266
TOT	2	2	18	36	102	83	14	14	5	18	314	694	1008
PCT	.2	.2	1.8	5.6	10.1	8.2	1.4	1.4	.5	1.8	31.2	68.8	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.5	.0	.3	3.8	20.2	75.3	372
06009	.5	.2	.0	1.9	23.1	74.3	416
12015	1.4	.8	.3	2.7	21.7	73.1	368
18021	1.0	.0	.2	2.7	20.0	76.0	404
TOT	13	4	3	43	332	1165	1560
PCT	.8	.3	.2	2.8	21.3	74.7	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR
CEILING HGT (FEET, NM >4/8) BY HOUR

HOUR (GMT)	<150 <500D	<600 <1	<1000 <5	1000+ AND 5+	NM <5/8 AND 5+	TOTAL OBS
00003	.4	2.1	8.0	20.6	71.4	238
06009	.0	1.8	9.1	23.2	67.7	220
12015	.0	4.2	14.2	30.4	55.4	260
18021	.4	2.3	9.4	19.1	71.5	256
TOT	2	26	100	228	646	974
PCT	.2	2.7	10.3	23.4	66.3	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
85/99	.0	.0	.0	.0	.3	.0	.1	.0	4	.4
80/84	.0	.0	.0	.1	.4	1.3	.5	.4	31	2.8
75/79	.0	.0	.0	.0	1.5	7.0	5.3	1.0	165	14.7
70/74	.0	.0	.0	.1	1.9	8.8	20.6	10.7	472	42.1
65/69	.0	.0	.0	.0	.2	1.2	12.7	20.4	386	34.4
60/64	.0	.0	.0	.0	.0	.1	.7	4.9	64	5.7
TOTAL	0	0	0	2	47	206	447	420	1122	100.0
PCT	.0	.0	.0	.2	4.2	18.4	39.8	37.4		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.0	.0	.0	.3	.1	.0	.0	.0	.0	.0
.0	.2	.2	1.5	.7	.2	.0	.0	.0	.0
.0	.0	.6	8.8	4.9	.1	.2	*	.0	.1
.1	.2	1.2	25.0	13.1	1.1	.3	.2	.0	.8
.2	.3	.5	12.3	16.2	1.6	.6	.7	.0	2.0
.0	.0	.1	1.3	3.2	.5	.2	.0	.0	.3
.3	.6	2.5	49.3	38.2	3.5	1.3	1.0	.0	3.1

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	82	79	77	62	64	63	60	69.9	353
06009	80	77	74	67	63	62	59	67.7	754
12015	82	80	76	69	64	62	61	69.3	527
18021	84	84	80	73	66	64	61	72.4	652
TOT	88	81	77	69	64	62	59	69.9	2486

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-39	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	.7	2.6	12.8	42.0	42.0	86	274
06009	.0	.0	2.0	8.9	39.6	49.5	88	293
12015	.0	.0	2.0	15.8	37.2	45.0	87	298
18021	.0	.0	9.7	35.6	40.9	13.8	80	298
TOT	0	2	48	214	464	435	85	1163

PERIOD: (PRIMARY) 1922-1977
(OVER-ALL) 1875-1977

APRIL

TABLE 17

AREA 0032 LIMA
11.45 78.24

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TEMP DIFF	01 04	05 08	09 12	13 16	17 20	18 24	19 28	TOT	W FOG	NO FOG
17/19	.0	.0	.0	.1	.1	.1	.0	3	.0	.3
14/16	.0	.1	.0	.1	.0	.1	.0	3	.0	.3
11/13	.1	.0	.2	.3	.1	.3	.0	11	.0	.9
8/10	.0	.3	.4	.3	.4	.3	.1	21	.0	1.8
7/8	.1	.8	1.0	.0	1.3	.3	.3	54	.2	4.4
6	.0	.5	.0	.4	.3	.1	.0	24	.1	1.9
5	.2	.5	2.3	1.4	.1	.0	.0	53	.1	4.4
4	.0	1.8	1.6	1.3	.1	.1	.0	58	.1	4.8
3	.1	1.9	2.3	1.3	.9	.3	.0	81	.2	6.6
2	.8	4.2	3.5	1.8	.9	.2	.0	136	.7	10.7
1	.9	5.8	3.9	1.7	.7	.1	.0	156	.4	12.6
0	1.3	6.9	4.2	2.4	1.3	.2	.0	195	.4	15.9
-1	.7	1.9	3.6	2.7	.9	.2	.0	122	.3	10.0
-2	.3	1.0	2.7	3.3	.6	.0	.0	95	.2	7.8
-3	.2	.9	2.4	2.3	.3	.1	.0	74	.1	6.1
-4	.0	.4	1.5	1.8	.3	.0	.0	49	.0	4.1
-5	.0	.1	1.1	1.0	.5	.0	.0	32	.0	2.7
-6	.0	.2	.3	.4	.1	.0	.0	11	.0	.9
-7/-8	.1	.3	.3	.3	.0	.0	.0	11	.0	.9
-9/-10	.0	.3	.1	.0	.0	.0	.0	4	.0	.3
-11/-13	.0	.1	.1	.0	.0	.0	.0	2	.0	.2
TOTAL	55	333	384	289	100	24	4	1195	31	1164
PCT	4.6	27.9	32.1	24.2	8.9	2.0	.3	100.0	2.6	97.4

PERIOD: (OVER-ALL) 1943-1977

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.5	.0	.0	.0	.5
5-6	.0	.0	.2	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.0	.2	.0	.0	.0	.2	.0	.0	.5	.0	.0	.0	.5

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.5	.0	.0	.0	.0	.5	.2	1.2	.1	.0	.0	.0	1.5
1-2	.0	1.5	.2	.0	.0	.0	1.8	.5	11.4	7.1	.0	.0	.0	18.9
3-4	.0	.4	.3	.0	.0	.0	.7	.0	4.8	12.7	.2	.0	.0	17.7
5-6	.0	.0	.0	.0	.0	.0	.0	.0	2.4	7.1	.2	.0	.0	9.7
7	.0	.0	.2	.0	.0	.0	.2	.0	.3	1.4	.0	.0	.0	1.7
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.8	.2	.0	.0	1.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.2
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	2.4	.7	.0	.0	.0	3.2	.7	20.0	29.2	.9	.0	.0	50.9

PERIOD: (OVER-ALL) 1963-1977

APRIL

AREA 0032 LIMA
11.45 78.2W

TABLE 18 (CONT.)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	2.0	.0	.0	.0	.0	2.0	.1	.2	.1	.0	.0	.0	.3
1-2	.4	12.8	3.7	.0	.0	.0	17.0	.0	.9	.0	.0	.0	.0	.9
3-4	.2	6.4	7.4	.0	.0	.0	14.0	.1	.2	.2	.0	.0	.0	.4
5-6	.0	1.5	4.6	.0	.0	.0	6.1	.0	.0	.0	.0	.0	.0	.0
7	.0	.4	1.4	.0	.0	.0	2.2	.0	.0	.1	.0	.0	.0	.1
8-9	.0	.0	1.3	.0	.0	.0	1.3	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.6	23.1	14.2	.0	.0	.0	42.8	.1	1.3	.3	.0	.0	.0	1.7

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.2	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
3-4	.0	.0	.2	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.2	.0	.0	.0	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	99.5

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	1.8	3.4	.5	.0	.0	.0	6.1	
1-2	1.1	26.3	10.9	.0	.0	.0	38.3	
3-4	.2	11.6	21.1	.2	.0	.0	33.1	
5-6	.0	3.4	11.8	.2	.0	.0	15.9	
7	.0	.7	3.4	.0	.0	.0	4.1	
8-9	.0	.0	2.0	.2	.0	.0	2.3	
10-11	.0	.0	.0	.2	.0	.0	.2	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	3.2	46.3	49.7	.9	.0	.0	100.0	441

PERIOD: (OVER-ALL) 1949-1977

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	1.2	7.9	17.7	9.2	1.5	.7	.0	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	311
6-7	.0	1.6	8.4	13.1	5.3	1.5	1.7	.9	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	264
8-9	.0	.7	3.1	3.0	2.8	.7	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	87
10-11	.0	1.1	.5	1.2	2.1	.6	.5	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	50
12-13	.0	.0	1.0	1.0	.7	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	23
13-14	.0	.0	.0	1.0	.5	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	13
INDBT	1.1	1.6	1.9	1.6	1.0	.1	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	60
TOTAL	19	105	263	249	113	32	21	9	2	1	0	0	0	0	0	0	0	0	0	0	808
PCT	2.4	13.0	32.5	30.1	14.0	4.0	2.6	1.1	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0

PERIOD: (PRIMARY) 1972-1977
(OVER-ALL) 1800-1977

MAY

AREA 0032 LIMA
11.45 78.4W

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SH-R	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THOR LTNG	FOG WD PCPN	FOG WD PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
N	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
NE	.0	5.9	23.5	.0	.0	.0	.0	29.4	.0	.0	.0	.0	.0	.0	70.6
E	.0	1.6	1.6	.0	.0	.0	.0	3.2	.0	.0	.0	.0	.0	.0	96.8
SE	.3	.2	.4	.0	.0	.0	.0	.9	.4	.0	1.5	.2	1.9	.0	95.2
S	.0	.0	.6	.0	.0	.0	.0	.6	.2	.2	1.6	.0	6.8	.0	90.6
SW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	99.1
W	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	11.1	.0	11.1	.0	77.8
NW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	5.3	10.5	.0	15.8	.0	68.4
TOT PCT	.2	.2	.6	.0	.0	.0	.0	.9	.3	.3	1.8	.1	4.0	.0	92.6
TOT OBS:	1168														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SH-R	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THOR LTNG	FOG WD PCPN	FOG WD PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
00003	.4	.4	.4	.0	.0	.0	.0	1.1	.4	.4	.7	.0	4.3	.0	93.3
06009	.0	.0	1.0	.0	.0	.0	.0	1.0	.0	.0	1.9	.0	3.9	.0	92.6
12015	.3	.3	1.0	.0	.0	.0	.0	1.7	.3	.0	2.7	.3	3.4	.0	91.6
18021	.0	.0	.3	.0	.0	.0	.0	.3	.3	.0	2.4	.0	5.1	.0	91.9
TOT PCT	.2	.2	.7	.0	.0	.0	.0	1.0	.3	.3	1.9	.1	4.1	.0	92.3
TOT OBS:	1184														

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)						48+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)						
	0-3	4-10	11-21	22-33	34-47	00					03	06	09	12	15	18	21
N	.2	.2	.0	.0	.0	.0		.4	4.0	.4	.0	.6	.5	.0	.2	.7	
NE	.2	.5	.1	.0	.0	.0		.7	6.1	.5	.0	.8	.9	.1	1.3	1.0	
E	.4	2.7	1.3	.1	.0	.0		4.5	9.1	4.1	7.8	3.3	4.9	4.7	5.6	5.8	3.5
SE	2.5	25.6	23.0	1.1	.1	.0		52.2	10.7	49.7	46.1	51.1	48.6	57.4	60.4	52.9	51.9
S	2.5	19.0	10.4	.5	.0	.0		32.5	9.5	34.3	35.9	33.7	32.9	31.0	28.5	31.0	32.1
SW	.5	2.7	.3	.0	.0	.0		3.4	6.6	5.4	3.9	3.1	2.3	1.6	4.2	3.0	6.6
W	.3	.4	.0	.0	.0	.0		.8	4.8	1.2	3.1	.8	.4	.0	.0	1.4	.0
NW	.3	.4	.1	.0	.0	.0		.9	6.2	.7	.0	1.2	3.4	.5	.0	.3	.0
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	4.5							4.5	.0	3.6	3.1	6.3	5.9	3.4	.0	4.2	4.2
TOT OBS	270	1241	825	40	2	0	2348		9.5	468	32	512	236	440	36	480	144
TOT PCT	11.5	51.4	35.1	1.7	.1	.0		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)					TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)				
	0-6	7-16	17-27	28-40	41+				00 03	06 09	12 15	18 21	
N	.4	*	.0	.0	.0	.4	4.0	.4	.6	.5	.3		
NE	.4	.3	.0	.0	.0	.7	6.1	.5	.3	.9	1.2		
E	1.6	2.5	.4	.0	.0	4.5	9.1	4.3	3.8	4.7	5.3		
SE	12.6	32.9	6.6	.1	*	52.2	10.7	49.5	50.3	57.6	52.6		
S	9.6	20.4	2.5	*	.0	32.5	9.5	34.5	33.5	30.8	31.3		
SW	2.0	1.4	*	.0	.0	3.4	6.6	5.4	2.9	1.8	3.8		
W	.6	.1	.0	.0	.0	.8	4.8	1.2	.7	.0	1.1		
NW	.5	.3	.0	.0	.0	.9	6.2	.7	1.9	.5	.2		
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
CALM	4.5					4.5	.0	3.6	6.1	3.2	4.2		
TOT OBS	757	1361	225	4	1	2348		500	748	476	624		
TOT PCT	32.2	58.0	9.6	.2	*		100.0	100.0	100.0	100.0	100.0		

PERIOD: (PRIMARY) 1922-1977
(OVER-ALL) 1800-1977

MAY

AREA 0032 LIMA
11.45 78.44

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)			48+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47				
0000Z	3.6	6.2	50.8	37.6	1.8	.0	.0	9.6	100.0	500
0600Z	6.1	7.8	53.5	31.1	1.3	.1	.0	9.0	100.0	748
1200Z	3.2	6.1	48.7	39.9	1.9	.2	.0	10.0	100.0	476
1800Z	4.2	7.5	52.1	34.3	1.9	.0	.0	9.4	100.0	624
TOT	105	165	1211	825	40	2	0	9.5		2348
PCT	4.5	7.0	51.6	35.1	1.7	.1	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & Obscd	TOTAL OBS	MEAN CLOUD COVER
N	.0	.1	.0	.2		6.6
NE	.1	.0	.2	.1		5.0
E	.7	.6	1.3	1.8		5.6
SE	8.9	4.9	12.9	28.1		6.0
S	10.7	3.2	7.6	13.6		5.0
SW	.7	.1	.4	.8		5.1
W	.2	.0	.0	.1		2.6
NW	.1	.0	.0	.0		2.0
VAR	.0	.0	.0	.0		.0
CALM	.5	.0	.3	1.8		6.1
TOT OBS	200	82	207	424	913	5.6
TOT PCT	21.9	9.0	22.7	46.4	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8)
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

000	150	300	600	1000	2000	3500	5000	6500	8000+	NH <5/8 ANY HGT	TOTAL OBS
149	299	599	999	1999	3499	4999	6499	7999			
.0	.0	.0	.0	.1	.0	.0	.0	.0	.1	.1	
.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.3	
.0	.0	.1	.6	1.6	.3	.1	.0	.0	.0	1.6	
.5	.7	1.7	10.2	14.3	5.1	3.5	.3	.1	.5	18.0	
.1	.3	.6	4.9	6.7	4.0	.8	.5	.1	.8	16.3	
.0	.0	.0	.1	.4	.0	.0	.0	.0	.0	.9	
.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.2	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
.2	.0	.0	.0	.8	.5	.0	.2	.0	.0	.9	
.8	.9	2.2	14.4	21.9	9.6	4.0	.9	.2	1.3	35.1	913
.9	1.0	2.4	15.8	24.0	10.5	4.4	1.0	.2	1.4	38.4	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE
OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)							
	= OR >10	= OR >5	= OR >2	= OR >1	= OR >1/2	= OR >1/4	= OR >50YD	= OR >0
= OR >4500	.9	1.4	1.6	1.7	1.7	1.7	1.7	1.7
= OR >4000	1.5	2.3	2.5	2.6	2.6	2.6	2.6	2.6
= OR >3500	5.1	6.6	6.9	7.0	7.0	7.0	7.0	7.0
= OR >3000	13.0	16.5	17.2	17.4	17.4	17.4	17.4	17.4
= OR >2500	31.4	40.1	41.4	41.5	41.5	41.5	41.5	41.5
= OR >2000	42.8	55.5	57.1	57.2	57.2	57.2	57.2	57.2
= OR >1500	43.9	57.4	59.3	59.6	59.6	59.6	59.6	59.6
= OR >1000	44.7	58.4	60.5	60.6	60.6	60.6	60.6	60.6
= OR >500	45.0	59.0	61.0	61.2	61.2	61.5	61.5	61.5
TOTAL	412	540	559	561	561	563	563	563

TOTAL NUMBER OF OBS: 916

PCT FREQ NH <5/8: 38.5

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	OBSCD	TOTAL OBS
14.2	6.4	7.0	5.9	4.8	4.1	7.0	10.3	40.2	.2	974

PERIOD: (PRIMARY) 1022-1977
(OVER-ALL) 1800-1977

MAY

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11.45 78.44

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSRY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCI	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1	.2	
	TOT %	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1	.2	
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1<2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
2<5	PCP	.0	.0	.1	.2	.1	.0	.0	.0	.0	.0	.3	
	NO PCP	.0	.0	.1	.7	1.2	.0	.0	.0	.0	.5	2.6	
	TOT %	.0	.0	.2	1.0	1.3	.0	.0	.0	.0	.5	3.0	
5<10	PCP	.0	.1	.0	.2	.2	.0	.0	.0	.0	.0	.4	
	NO PCP	.2	.1	.5	10.4	9.0	.6	.2	.2	.0	1.5	22.7	
	TOT %	.2	.2	.5	10.6	9.2	.6	.2	.2	.0	1.5	23.2	
10+	PCP	.0	.0	.1	.1	.0	.0	.0	.0	.0	.0	.2	
	NO PCP	.1	.2	3.3	41.6	24.5	1.7	.6	.1	.0	1.1	73.2	
	TOT %	.1	.2	3.4	41.7	24.5	1.7	.6	.1	.0	1.1	73.4	
TOT OBS													1149
TOT PCT		.3	.4	4.1	53.4	35.2	2.3	.8	.3	.0	3.3	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED
WITH VARYING VALUES OF VISIBILITY

VSRY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1	.3	
	4-10	.0	.0	.0	.1	.1	.0	.0	.0	.0	.0	.1	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.2	.1	.0	.0	.0	.0	.1	.4	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1	
	4-10	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1	
	11-21	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.1	.2	.0	.0	.0	.0	.1	.4	
2<5	0-3	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.7	
	4-10	.0	.0	.1	.8	.9	.1	.0	.0	.0	.0	1.8	
	11-21	.0	.0	.1	.1	.4	.0	.0	.0	.0	.0	.6	
	22+	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.1	
	TOT %	.0	.0	.2	1.0	1.5	.1	.0	.0	.0	.6	3.2	
5<10	0-3	.1	.0	.0	.6	.4	.1	.1	.1	.0	1.5	2.9	
	4-10	.1	.1	.4	4.4	3.3	.4	.1	.0	.0	10.8	7.5	
	11-21	.0	.1	.1	4.7	2.6	.1	.0	.0	.0	7.5	3.3	
	22+	.0	.0	.0	.2	.1	.0	.0	.0	.0	.0	.3	
	TOT %	.2	.1	.5	9.8	8.5	.6	.2	.1	.0	1.5	21.5	
10+	0-3	.0	.0	.2	1.0	1.2	.3	.3	.1	.0	1.7	4.8	
	4-10	.1	.1	2.1	17.3	14.6	1.8	.3	.1	.0	36.4	31.8	
	11-21	.0	.0	1.0	20.7	9.9	.2	.1	.0	.0	31.8	1.4	
	22+	.0	.0	.0	.9	.5	.0	.0	.0	.0	.0	.4	
	TOT %	.1	.2	3.3	39.9	26.3	2.2	.6	.2	.0	1.7	74.4	
TOT OBS													1385
TOT PCT		.2	.3	3.9	50.9	36.5	2.9	.8	.4	.0	4.0	100.0	

PERIOD: (PRIMARY) 1922-1977
(OVER-ALL) 1800-1977

MAY

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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NM >4/8) AND
OCCURRENCE OF NM <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 399	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NM <5/8 ANY HGT	TOTAL OBS
00003	.9	1.4	1.8	14.1	22.3	5.9	3.6	.0	.5	.5	50.9	49.1	220
06009	.9	.9	1.7	12.4	25.3	8.6	3.9	.9	.0	2.1	56.7	43.3	233
12015	1.2	.8	4.0	19.9	27.1	13.1	5.0	2.4	.4	1.6	76.1	23.9	251
18021	.4	.8	1.7	14.8	19.9	12.7	3.8	.4	.0	1.7	56.4	43.6	236
TOT	8	9	22	145	223	96	40	9	2	14	568	372	940
PCT	.9	1.0	2.3	15.4	23.7	10.2	4.3	1.0	.2	1.5	60.4	39.6	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.6	.0	.0	2.4	23.2	73.7	327
06009	.7	.0	.2	3.6	18.1	77.3	414
12015	.3	.0	.9	3.4	22.6	72.7	319
18021	.0	.0	.3	4.1	23.5	72.1	340
TOT	6	0	5	48	303	1038	1400
PCT	.4	.0	.4	3.4	21.6	74.1	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR
CEILING HGT (FEET, NM >4/8) BY HOUR

HOUR (GMT)	<150 <500	<600 <1	<1000 <5	1000+ AND 5+	NM <5/8 AND 5+	TOTAL OBS
00003	.9	4.2	22.2	32.5	45.3	212
06009	.9	3.5	18.4	40.4	41.2	228
12015	1.2	6.1	29.1	48.8	22.1	244
18021	.4	3.0	20.7	37.5	41.8	232
TOT	8	39	208	367	341	916
PCT	.9	4.3	22.7	40.1	37.2	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
80/84	.0	.0	.1	.1	.0	.5	.2	.0	9	.9
75/79	.0	.0	.0	.2	1.4	3.2	2.0	.8	79	7.6
70/74	.0	.0	.0	.0	2.5	11.7	13.1	4.1	327	31.4
65/69	.0	.0	.0	.0	.3	7.5	21.6	13.2	443	42.6
60/64	.0	.0	.0	.0	.1	.4	8.4	8.7	182	17.5
TOTAL	0	0	1	3	45	242	471	278	1040	100.0
PCT	.0	.0	.1	.3	4.3	23.3	45.3	26.7		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
80/84	.0	.1	.1	.3	.2	.1	.0	.0	.0	.0
75/79	.0	.0	.4	5.1	2.0	.1	.0	.0	.0	.0
70/74	.0	.1	1.6	19.9	9.3	.5	.1	.0	.0	.0
65/69	.2	.1	1.4	23.2	15.3	1.3	.3	.0	.0	.8
60/64	.1	.0	.3	7.2	7.1	.3	.2	.4	.0	1.7
TOT	.3	.3	3.8	55.8	33.9	2.3	.6	.5	.0	2.5

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	90%	5%	1%	MIN	MEAN	TOTAL OBS
00003	82	80	75	67	62	61	59	67.6	495
06009	82	75	72	65	61	59	56	65.7	753
12015	82	76	73	67	62	60	60	67.2	477
18021	83	79	77	70	64	61	57	70.0	575
TOT	83	78	75	67	62	60	56	67.5	2300

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-39	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	.4	2.4	20.9	51.2	25.2	84	254
06009	.0	.0	1.1	18.9	44.8	35.2	85	281
12015	.0	.4	2.6	17.4	50.0	29.6	85	270
18021	.0	.8	11.0	36.1	36.9	15.2	80	263
TOT	0	4	45	248	488	283	83	1068

PERIOD: (PRIMARY) 1922-1977
(OVER-ALL) 1860-1977

MAY

TABLE 17

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11.45 78.4W

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	57 60	61 64	65 68	69 72	73 76	77 80	81 84	TOT	N FOG	NO FOG
11/13	.0	.0	.0	.3	.2	.0	.0	5	.0	.5
9/10	.0	.2	.1	.2	.1	.0	.1	7	.0	.6
7/8	.0	.1	.1	.6	.5	.5	.0	19	.0	1.8
6	.0	.2	.3	.6	.5	.0	.0	17	.1	1.5
5	.0	.2	.3	.4	.9	.2	.0	21	.0	1.9
4	.0	.0	1.4	1.4	.8	.2	.0	41	.0	3.8
3	.0	.9	.9	.6	1.4	.3	.0	45	.1	4.1
2	.0	2.6	3.4	1.9	.8	.5	.0	100	.4	8.9
1	.2	2.4	3.9	2.3	1.3	.3	.0	112	.4	10.0
0	.1	2.3	5.7	3.6	2.1	.6	.3	160	.4	14.4
-1	.2	2.5	4.2	5.8	1.0	.2	.0	150	.4	13.5
-2	.1	1.7	3.6	3.7	1.8	.6	.1	124	.1	11.3
-3	.2	.6	2.8	3.1	1.5	.0	.0	89	.0	8.2
-4	.0	.6	3.6	2.2	.6	.0	.0	76	.1	6.9
-5	.0	.6	1.6	2.2	.8	.0	.0	56	.0	5.2
-6	.0	.3	1.0	.8	.3	.0	.0	26	.0	2.4
-7/-8	.0	.6	.6	1.2	.3	.0	.0	29	.0	2.7
-9/-10	.1	.0	.3	.3	.0	.0	.0	7	.0	.6
TOTAL	9		364		161	35	5	1084	20	1064
PCT	.8	17.0	33.6	31.4	14.9	3.2	.5	100.0	1.8	98.2

PERIOD: (OVER-ALL) 1963-1977

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

WGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.2
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.2
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.0	.0	.0	.0	.0	.0	.0	.2	.2	.0	.0	.0	.4

WGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.1	.0	.0	.0	.0	.1	.0	1.9	.0	.0	.0	.0	1.9
1-2	.0	2.1	.4	.0	.0	.0	2.6	.6	7.7	5.1	.0	.0	.0	13.5
3-4	.0	.1	.6	.0	.0	.0	.8	.0	7.9	15.2	.6	.0	.0	23.8
5-6	.0	.0	.0	.0	.0	.0	.0	.0	2.3	9.1	.2	.0	.0	11.6
7	.0	.0	.0	.0	.0	.0	.0	.0	.4	4.1	.6	.0	.0	5.1
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.6	.0	.0	.0	.6
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.2
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	2.4	1.1	.0	.0	.0	3.5	.7	20.2	34.1	1.7	.0	.0	56.7

PERIOD: (OVER-ALL) 1943-1977

MAY

AREA 0032 LIMA
11.45 78.4W

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.3	.5	.0	.0	.0	.0	.9	.0	.0	.0	.0	.0	.0	.0
1-2	.5	10.9	3.5	.0	.0	.0	15.0	.0	1.5	.0	.0	.0	.0	1.5
3-4	.0	5.4	5.4	.1	.0	.0	11.0	.0	.5	.0	.0	.0	.0	.5
5-6	.0	1.0	5.0	.0	.0	.0	6.1	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.2	.0	.0	.5	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.3	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.9	17.9	14.3	.7	.0	.0	32.8	.0	2.0	.0	.0	.0	.0	2.1

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.2	.2	.0	.0	.0	.0	.4	.0	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.2	.2	.3	.0	.0	.0	.6	.0	.0	.0	.0	.0	.0	.0	97.2

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	3.8	2.6	.0	.0	.0	.0	6.3	
1-2	1.4	22.7	9.1	.0	.0	.0	33.2	
3-4	.0	13.8	21.5	.8	.0	.0	36.2	
5-6	.0	3.4	14.0	.2	.0	.0	17.6	
7	.0	.4	4.3	.8	.0	.0	5.5	
8-9	.0	.0	.0	.4	.0	.0	1.0	
10-11	.0	.0	.0	.2	.0	.0	.2	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	5.1	42.9	49.6	2.4	.0	.0	100.0	506

PERIOD: (OVER-ALL) 1950-1977

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	2.4	6.6	11.6	11.5	3.5	.9	.3	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	292	4
6-7	.0	2.0	6.3	11.3	4.4	1.0	.3	.3	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	204	5
8-9	.0	.6	7.8	3.5	7.2	2.5	.4	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	137	6
10-11	.0	.5	.0	1.0	1.0	1.3	.1	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	32	7
12-13	.0	.0	.8	.9	1.1	.9	.3	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	32	6
>13	.0	.0	.0	.8	1.0	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	17	6
INDPT	1.3	2.1	3.9	1.8	.6	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	793	3
TOTAL	29	94	201	244	150	57	10	5	3	0	0	0	0	0	0	0	0	0	0	793	3
PCT	3.7	11.9	25.3	30.8	18.9	7.2	1.3	.6	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	

PERIOD: (PRIMARY) 1929-1977
(OVER-ALL) 1855-1977

JUNE

AREA 0032 LIMA
11.35 78.2W

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN CHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST BLWG SNOW	NO SIG WEA
N	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	90.5
E	1.8	.0	4.2	.0	.0	.0	.0	6.0	.0	.0	9.5	.0	6.5	.0	78.0
SE	.5	.4	.7	.0	.0	.0	.0	1.5	.3	.2	4.4	.0	3.8	.0	89.7
S	.2	.3	1.1	.0	.0	.0	.0	1.6	.2	.2	5.6	.0	10.2	.4	81.9
SW	6.7	.0	.0	.0	.0	.0	.0	6.7	.0	.0	8.3	.0	26.7	.0	58.3
W	.0	.0	.0	.0	.0	.0	.0	.0	8.2	.0	6.1	.0	8.2	.0	77.6
NW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	4.5	.0	.0	.0	95.5
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	5.7	.0	13.2	.0	81.1
TOT PCT	.6	.3	.9	.0	.0	.0	.0	1.8	.3	.2	5.2	.0	7.3	.2	85.1
TOT OBS:	1285														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN CHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST BLWG SNOW	NO SIG WEA
0000	.3	.3	.7	.0	.0	.0	.0	1.3	.0	.0	3.3	.0	9.3	.3	85.7
0600	.9	.3	1.5	.0	.0	.0	.0	2.7	.0	.3	4.6	.0	5.5	.0	86.9
1200	.8	.0	.6	.0	.0	.0	.0	1.4	.4	.3	8.1	.0	5.0	.0	84.4
1800	.3	.6	.6	.0	.0	.0	.0	1.5	.3	.0	3.9	.0	9.9	.3	84.1
TOT PCT	.6	.3	.8	.0	.0	.0	.0	1.7	.3	.2	5.1	.0	7.3	.2	85.2
TOT OBS:	1320														

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	0-3	WIND SPEED (KNOTS)						48+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)						
		4-10	11-21	22-33	34-47	00	03					06	09	12	15	18	21	
N	.5	.3	*	.0	.0	.0		.9	3.8		.0	.0	.5	3.1	1.1	1.4	.6	1.6
NE	.4	.4	.2	.0	.0	.0		1.2	6.0		.1	.0	1.0	3.5	1.6	.7	1.2	1.0
E	.7	2.3	1.1	.1	.0	.0		4.2	8.9		2.9	2.9	4.0	4.6	4.1	6.1	5.7	3.3
SE	2.7	25.3	20.5	.6	.2	.0		49.2	10.6		47.7	58.6	48.6	45.5	54.1	57.4	50.4	38.4
S	2.7	18.7	10.4	.3	*	.0		32.2	9.3		37.4	30.7	33.0	25.6	29.1	24.3	31.3	38.9
SW	.5	2.4	.6	.0	.0	.0		3.6	7.3		3.7	2.1	3.8	3.9	2.6	8.8	3.2	5.4
W	.4	.9	.0	.0	.0	.0		1.3	4.8		1.2	.0	.9	2.5	1.4	.0	1.1	1.9
NW	.5	.5	.0	.0	.0	.0		1.0	4.9		1.1	2.9	1.2	2.3	.4	1.4	.4	1.9
VAR	.0	.0	.0	.0	.0	.0		.0	.0		.0	.0	.0	.0	.0	.0	.0	.0
CALM	6.4							6.4	.0		.0	.0	.0	.0	.0	.0	.0	.0
TOT OBS	301	1750	803	22	5	0	2441				5.9	2.9	6.9	9.1	5.7	.0	6.0	7.6
TOT PCT	14.8	51.2	32.9	.9	.2	.0		100.0			475	35	521	243	487	37	488	157

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)					41+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)				
	0-6	7-16	17-27	28-40	00 03					06 09	12 15	18 21		
N	.8	.1	.0	.0	.0		.9	3.8	.0	1.3	1.1	.9		
NE	.8	.4	.0	.0	.0		1.2	6.0	.0	1.8	1.5	1.2		
E	1.6	2.1	.5	.0	.0		4.2	8.9	2.9	4.2	4.2	5.1		
SE	11.8	31.0	6.2	.3	.0		49.2	10.6	48.5	47.6	54.3	47.5		
S	10.9	17.5	2.7	.0	.0		32.2	9.3	36.9	30.7	28.8	33.1		
SW	1.1	.1	.0	.0	.0		3.6	7.3	3.6	3.9	3.0	3.8		
W	1.1	.2	.0	.0	.0		1.3	4.8	1.1	1.4	1.3	1.3		
NW	.8	.2	.0	.0	.0		1.0	4.9	1.2	1.5	.4	.8		
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0		
CALM	6.4						6.4	.0	.0	5.7	7.6	5.3	6.4	
TOT OBS	878	1323	232	8	0	2441			9.1	510	764	524	643	
TOT PCT	36.0	54.2	9.5	.3	.0		100.0			100.0	100.0	100.0	100.0	

PERIOD: (PRIMARY) 1923-1977
(OVER-ALL) 1855-1977

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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)			48+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47				
0000	5.7	6.9	47.3	38.8	1.4	.0	.0	9.7	100.0	510
0600	7.6	9.7	44.7	27.1	.8	.1	.0	8.4	100.0	764
1200	5.3	9.4	52.7	31.7	.8	.2	.0	9.0	100.0	524
1800	6.4	7.3	49.0	36.1	.8	.5	.0	9.3	100.0	643
TOT	156	205	1230	803	22	5	0	9.1		2441
PCT	6.4	8.4	51.2	32.9	.9	.2	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBS	TOTAL OBS	MEAN CLOUD COVER
N	.0	.0	.1	.0		7.0
NE	.0	.0	.2	.2		7.9
E	.1	.0	.7	2.3		7.4
SE	5.2	2.5	12.3	35.4		6.8
S	4.3	2.4	7.2	20.1		6.4
SW	.6	.2	.4	1.7		6.0
W	.1	.0	.2	.3		6.4
NW	.0	.0	.0	.1		8.0
VAR	.0	.0	.0	.0		.0
CALM	1.0	.2	.1	2.0		5.4
TOT OBS	109	52	202	598	961	6.6
TOT PCT	11.3	5.4	21.0	62.2	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >478)
AND OCCURRENCE OF NH <578 BY WIND DIRECTION

000	150	300	600	1000	2000	3500	5000	6500	8000+	NH <578	TOTAL
149	299	599	999	1999	3499	4999	6499	7999		ANY HGT	OBS
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	
.0	.0	.0	.1	.2	.0	.0	.0	.0	.0	.0	
.1	.0	.3	.9	1.3	.3	.2	.0	.1	.0	.1	
.1	.2	1.5	9.1	21.2	8.7	2.5	.3	.1	.1	11.7	
.2	1.0	6.0	12.1	3.6	1.4	.1	.2	.4	.4	9.0	
.1	.0	.3	.9	.3	.1	.0	.1	.1	.1	.8	
.0	.0	.0	.2	.2	.1	.0	.0	.0	.0	.1	
.0	.1	.0	.1	.0	.1	.0	.0	.0	.0	.0	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
.2	.0	.2	.5	.3	.5	.2	.1	.0	.0	1.2	
.6	.5	3.1	16.4	34.7	13.0	4.2	.5	.5	.5	22.1	961
.6	.5	3.2	17.1	36.1	13.5	4.4	.5	.5	.5	23.0	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE
OF CEILING HEIGHT (NH >478) AND VISBY (NM)

CEILING (FEET)	VISBY (NM)							
	>10	>5	>2	>1	>1/2	>1/4	>30YD	>0
>6500	.6	.9	1.0	1.0	1.0	1.0	1.0	1.0
>5000	1.0	1.4	1.5	1.5	1.5	1.5	1.5	1.5
>3500	4.0	5.8	6.0	6.0	6.0	6.0	6.0	6.0
>2000	14.1	18.8	19.3	19.3	19.3	19.3	19.3	19.3
>1000	41.0	51.9	55.7	55.7	55.7	55.7	55.7	55.7
>800	52.9	67.2	72.4	72.5	72.5	72.5	72.5	72.5
>600	55.6	69.3	75.6	75.7	75.7	75.7	75.7	75.7
>450	53.8	69.6	76.1	76.2	76.2	76.2	76.2	76.2
>300	53.8	70.0	76.6	76.7	76.8	76.8	76.9	76.9
TOTAL	522	679	743	744	745	745	746	746

TOTAL NUMBER OF OBS 970

PCT FREQ NH <578 23.1

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	OBS	TOTAL OBS
5.7	6.1	5.5	4.0	3.1	3.3	6.6	11.4	55.8	.6	1043

PERIOD: (PRIMARY) 1923-1977
(OVER-ALL) 1899-1977

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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSRY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NN PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1	
1/2<1	PCP	.0	.0	.0	.1	.0	.2	.0	.0	.0	.0	.2	
	NN PCP	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1	
	TOT %	.0	.0	.0	.1	.0	.2	.0	.0	.0	.0	.3	
1<2	PCP	.0	.0	.1	.1	.0	.0	.0	.0	.0	.0	.2	
	NN PCP	.0	.0	.0	.1	*	.0	.1	.0	.0	.1	.3	
	TOT %	.0	.0	.1	.2	*	.0	.1	.0	.0	.1	.5	
2<5	PCP	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1	
	NN PCP	.0	.2	.3	2.8	3.0	.4	.2	*	.0	.2	7.2	
	TOT %	.0	.2	.3	2.8	3.1	.4	.2	*	.0	.2	7.3	
5<10	PCP	.0	.0	.1	.6	.4	.0	.0	.0	.0	.0	1.0	
	NN PCP	*	.1	.5	10.0	9.1	1.7	.2	.0	.0	1.3	23.1	
	TOT %	*	.1	.6	10.6	9.5	1.7	.2	.0	.0	1.3	24.1	
10+	PCP	.0	.0	.1	.1	.1	.0	.0	.0	.0	.0	.2	
	NN PCP	.1	.1	2.3	38.8	22.0	1.1	.4	.2	.0	2.5	67.5	
	TOT %	.1	.1	2.3	38.8	22.1	1.1	.4	.2	.0	2.5	67.7	
TOT OBS													1271
TOT PCT		.2	.4	3.3	52.4	34.7	3.5	.9	.4	.0	4.2	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED
WITH VARYING VALUES OF VISIBILITY

VSRY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1	
	11-21	.0	.0	.0	.1	.0	.1	.0	.0	.0	.0	.2	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.1	.0	.2	.0	.0	.0	.0	.3	
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1	
	4-10	.0	.0	.0	.2	*	.1	.1	.0	.0	.0	.4	
	11-21	.0	.0	*	*	.0	.0	.0	.0	.0	.0	.1	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	*	.2	*	.1	.1	.0	.0	.1	.5	
2<5	0-3	.0	.1	.1	.1	.2	.0	*	*	.0	.3	.9	
	4-10	.0	.1	.1	1.5	1.8	.3	.1	*	.0	.0	4.0	
	11-21	.0	.0	.0	.8	.6	.1	.0	.0	.0	.0	1.5	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.2	.3	2.4	2.7	.4	.2	*	.0	.3	6.4	
5<10	0-3	.0	.1	.2	.8	.6	.1	.0	.0	.0	1.4	3.2	
	4-10	*	.0	.3	4.6	5.1	1.2	.1	.2	.0	.0	11.6	
	11-21	.0	.0	.1	4.6	3.3	.2	.0	.0	.0	.0	8.2	
	22+	.0	.0	.0	*	.2	.0	.0	.0	.0	.0	.2	
	TOT %	*	.1	.6	10.0	9.2	1.5	.1	.2	.0	1.4	23.2	
10+	0-3	.2	.1	.2	1.9	1.3	.3	.1	.2	.0	4.7	8.8	
	4-10	.1	.2	1.4	18.1	12.7	1.2	.4	.2	.0	.0	34.2	
	11-21	.0	.0	.7	17.1	8.0	.2	.0	.0	.0	.0	23.9	
	22+	.0	.0	.0	.3	.2	.0	.0	.0	.0	.0	.5	
	TOT %	.2	.3	2.3	37.4	22.2	1.6	.5	.4	.0	4.7	69.5	
TOT OBS													1530
TOT PCT		.3	.5	3.2	50.1	34.0	3.6	.8	.6	.0	6.6	100.0	

PERIOD: (PRIMARY) 1923-1977
(OVER-ALL) 1855-1977

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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NM >4/8) AND
OCCURRENCE OF NM <5/8 BY HOUR

HOUR (GMT)	000	150	300	600	1000	2000	3500	5000	6500	8000+	TOTAL	NM <5/8 ANY HGT	TOTAL OBS
00003	.4	.0	2.1	12.4	26.9	15.0	6.0	.0	.4	.4	63.7	36.3	234
06009	.0	.4	3.5	14.0	39.5	12.3	3.5	.0	.9	.9	75.0	25.0	228
12015	1.8	1.1	4.6	21.1	40.8	13.0	4.6	.4	.4	.0	87.7	12.3	284
18021	.4	.4	2.1	18.3	35.7	12.8	3.4	1.7	.4	.9	76.2	23.8	235
TOT	7	5	31	164	353	130	43	5	5	5	748	233	981
PCT	.7	.5	3.2	16.7	36.0	13.3	4.4	.5	.5	.5	76.2	23.8	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.0	.0	1.5	6.8	25.6	66.2	340
06009	.0	.5	.0	4.6	24.1	70.8	431
12015	.3	.3	.8	9.1	20.8	68.8	394
18021	.0	.2	.7	5.7	24.2	69.1	401
TOT	1	4	11	102	370	1078	1566
PCT	.1	.3	.7	6.5	23.6	68.8	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR
CEILING HGT (FEET, NM >4/8), BY HOUR

HOUR (GMT)	<150 <500	<600 <1	<1000 <5	1000+ AND 5+	NM <5/8 AND 5+	TOTAL OBS
00003	.4	2.6	20.9	44.8	34.3	230
06009	.0	4.0	23.2	53.1	23.7	224
12015	1.8	7.4	33.3	55.7	11.0	282
18021	.4	3.0	23.2	53.0	21.0	234
TOT	7	43	253	503	214	976
PCT	.7	4.4	26.1	51.9	22.1	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
80/84	.0	.0	.0	.0	.1	.0	.0	.0	1	.1
75/79	.0	.0	.0	.1	.3	.5	.4	.0	14	1.3
70/74	.0	.0	.0	.1	1.5	4.9	4.3	1.8	138	12.5
65/69	.0	.0	.0	.2	2.4	15.3	16.8	6.0	448	40.7
60/64	.0	.0	.0	.0	.2	4.7	23.3	14.1	466	42.3
55/59	.0	.0	.0	.0	.0	.1	1.2	1.9	35	3.2
TOTAL	0	0	0	4	48	282	506	262	1102	100.0
PCT	.0	.0	.0	.4	4.4	25.6	45.9	23.8		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
80/84	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0
75/79	.0	.0	.0	.7	.5	.1	.0	.0	.0	.0
70/74	.0	.0	.6	7.1	4.2	.4	.0	.0	.0	.0
65/69	.0	.0	1.7	23.8	13.1	1.2	.2	.0	.0	.2
60/64	.1	.4	1.3	19.9	14.8	1.4	.7	.3	.0	.6
55/59	.0	.0	.2	1.2	1.7	.1	.0	.0	.0	.1
TOTAL	.1	.3	3.8	52.6	34.4	3.1	.9	.4	.0	4.3

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	81	72	70	64	60	59	58	64.7	322
06009	74	72	69	63	59	57	54	63.4	773
12015	81	73	70	64	60	58	57	64.5	939
18021	84	76	73	64	61	60	59	66.6	648
TOT	84	74	71	64	60	58	54	64.8	2482

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	.0	2.6	27.4	47.4	22.6	83	270		
06009	.0	.4	1.8	20.0	47.5	30.4	85	280		
12015	.0	.3	3.5	21.2	47.4	27.6	84	312		
18021	.0	.7	9.6	35.6	40.4	13.7	80	270		
TOT	0	4	49	292	918	269	83	1132		

PERIOD: (PRIMARY) 1923-1977
(OVER-ALL) 1955-1977

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TABLE 17

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PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	53 56	57 60	61 64	65 68	69 72	73 76	77 80	81 84	TOT	W FOG	WD FOG
14/16	.0	.0	.0	.0	.1	.1	.0	.0	2	.0	.2
11/13	.0	.0	.0	.1	.1	.1	.0	.0	3	.0	.3
9/10	.0	.0	.0	.1	.3	.3	.1	.0	9	.0	.8
7/8	.0	.0	.0	.6	.2	.3	.0	.0	13	.0	1.1
6	.0	.0	.0	1.2	.4	.0	.1	.0	20	.2	1.5
5	.0	.1	.2	1.5	.7	.3	.1	.0	34	.5	2.4
4	.0	.0	1.0	.8	.9	.0	.0	.1	33	.0	2.8
3	.0	.1	1.8	1.6	.4	.2	.1	.0	49	.9	3.2
2	.0	.4	3.7	2.9	1.4	.3	.2	.0	105	.8	8.1
1	.0	.7	5.1	2.3	1.1	.8	.0	.0	118	.5	9.5
0	.0	2.9	3.7	4.6	2.2	.3	.0	.0	183	1.2	14.3
-1	.0	1.9	4.5	4.6	2.3	.3	.1	.0	160	.8	12.7
-2	.0	.8	4.1	4.0	2.8	.3	.0	.0	152	.3	12.5
-3	.0	.3	2.6	3.8	2.0	.3	.0	.0	107	.2	8.9
-4	.0	.4	2.5	3.5	1.4	.0	.0	.0	93	.2	7.7
-5	.0	.1	1.6	1.5	.6	.0	.0	.0	45	.0	3.8
-6	.1	.1	1.1	1.2	.1	.0	.0	.0	30	.0	2.5
-7/-8	.0	.2	1.4	.6	.2	.0	.0	.0	27	.0	2.3
-9/-10	.0	.0	.2	.0	.0	.0	.0	.0	2	.0	.2
TOTAL	1	93	420	418	202	42	8	1	1185	65	1120
PCT	.1	7.8	35.4	33.3	17.0	3.5	.7	.1	100.0	5.5	94.5

PERIOD: (OVER-ALL) 1963-1977

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.3
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.2
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.0	.0	.0	.0	.0	.0	.2	.2	.0	.0	.0	.0	.5

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.5	.3	.0	.0	.0	.0	.8	.5	2.5	.2	.0	.0	.0	3.2
1-2	.0	1.1	.0	.0	.0	.0	1.1	.6	10.9	4.3	.0	.0	.0	16.0
3-4	.0	.1	.1	.0	.0	.0	.3	.0	8.6	10.2	.0	.0	.0	18.8
5-6	.0	.0	.6	.0	.0	.0	.6	.0	1.6	11.8	.0	.0	.0	13.1
7	.0	.0	.3	.0	.0	.0	.3	.0	.0	3.7	.6	.0	.0	4.2
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.4	.6	.0	.0	.8
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.4
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.5	1.6	1.0	.0	.0	.0	3.1	1.1	23.6	30.8	1.0	.0	.0	56.5

PERIOD: (OVER-ALL) 1963-1977

JUNE

AREA 0032 LIMA
11.33 78.2W

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	1.4	3.1	.0	.0	.0	.0	4.4	.4	1.0	.2	.0	.0	.0	.0	1.6
1-2	.9	7.3	2.4	.0	.0	.0	10.6	.0	.9	.2	.0	.0	.0	.0	1.1
3-4	.0	5.2	6.5	.2	.0	.0	11.9	.0	.1	.0	.0	.0	.0	.0	.1
5-6	.0	.8	3.4	.2	.0	.0	4.9	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.4	.0	.0	.0	.8	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.1	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.1	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	2.3	16.4	13.6	.5	.1	.0	32.9	.4	2.1	.4	.0	.0	.0	.0	2.9

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.1	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.3	.0	.0	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.1	.3	.0	.0	.0	.0	.5	.0	.0	.0	.0	.0	.0	.0	96.4

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	6.5	7.1	.4	.0	.0	.0	14.0	
1-2	2.1	20.2	7.1	.0	.0	.0	29.3	
3-4	.0	14.4	16.6	.2	.0	.0	31.2	
5-6	.0	2.6	15.9	.2	.0	.0	18.7	
7	.0	.0	4.7	.6	.0	.0	5.2	
8-9	.0	.0	.4	.4	.0	.0	.7	
10-11	.0	.0	.4	.2	.0	.0	.6	
12	.0	.0	.0	.0	.2	.0	.2	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	8.6	44.3	45.4	1.5	.2	.0	100.0	535

PERIOD: (OVER-ALL) 1969-1977

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
4-6	4.6	7.8	15.8	6.2	1.3	.5	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	302
6-7	.0	1.6	8.8	10.9	5.8	3.0	1.1	.4	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	265
8-9	.0	.4	1.1	4.1	3.9	2.4	.5	.2	1.0	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	113
10-11	.0	.6	1.1	1.3	1.5	1.8	.9	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	65
12-13	.0	.0	.1	.2	.4	.6	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	12
15-19	.0	.0	.0	.1	.2	.1	.1	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	6
INDENT	1.2	1.3	1.2	1.9	.1	.9	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	39
TOTAL	49	96	231	205	109	77	27	11	12	5	0	0	0	0	0	0	0	0	0	0	822
PCT	6.0	11.7	28.1	24.9	13.3	9.4	3.3	1.3	1.5	.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0

PERIOD: (PRIMARY) 1920-1977
(OVER-ALL) 1855-1977

JULY

AREA 0032 LIMA
11.45 78.3W

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRIG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
N	.0	.0	8.0	.0	.0	.0	.0	8.0	.0	.0	12.0	.0	.0	.0	80.0
NE	.0	.0	4.7	.0	.0	.0	.0	4.7	.0	.0	.0	.0	9.3	.0	86.0
E	.0	2.6	1.3	.0	.0	.0	.0	4.0	2.6	.0	.0	.0	2.0	.0	91.4
SE	.8	1.4	2.3	.0	.0	.0	.0	4.3	.8	.0	1.6	.0	2.0	.0	91.4
S	.7	.3	2.3	.0	.0	.0	.0	3.3	.3	.0	2.5	.0	3.4	.0	90.3
SW	.0	.0	4.5	.0	.0	.0	.0	4.5	.0	.0	3.0	.0	.0	.0	92.5
W	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
NW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3.4	.0	13.8	.0	82.8
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	3.6	.0	.0	.0	.0	3.6	.0	.0	7.1	.0	.0	.0	89.3
TOT PCT	.7	.9	2.4	.0	.0	.0	.0	3.8	.6	.0	2.1	.1	2.5	.0	90.9
TOT OBS:	1308														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRIG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
00003	1.0	.3	1.0	.0	.0	.0	.0	2.0	.7	.0	1.6	.3	2.0	.0	93.4
06009	1.4	1.4	2.6	.0	.0	.0	.0	5.5	.6	.0	.9	.0	.9	.0	92.2
12015	.8	.6	4.2	.0	.0	.0	.0	5.3	1.1	.0	3.3	.0	3.9	.0	86.4
18021	.3	1.2	1.8	.0	.0	.0	.0	3.3	.0	.0	2.1	.0	3.0	.0	91.6
TOT PCT	.9	.9	2.5	.0	.0	.0	.0	4.1	.6	.0	2.0	.1	2.5	.0	90.8
TOT OBS:	1341														

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	48+					00	03	06	09	12	15	18	21
N	.5	.4	.0	.0	.0	.0		.9	3.8	.0	.0	.6	2.2	1.3	.0	.8	.9	
NE	.3	.4	.1	.0	.0	.0		.7	5.6	.4	.0	.3	.8	1.8	2.4	.6	.0	
E	.3	2.1	.8	.2	.0	.0		3.5	9.4	1.7	4.0	2.9	5.3	3.3	7.9	4.8	3.7	
SE	2.8	24.0	21.7	2.2	.4	.0		53.0	11.2	50.4	70.2	50.4	31.8	55.3	57.3	55.9	51.8	
S	2.2	19.6	10.0	.7	.0	.0		32.6	9.5	38.4	29.8	35.7	25.9	31.2	29.0	28.3	35.9	
SW	.8	2.1	.5	.0	.0	.0		3.4	6.9	4.6	.0	3.7	3.6	2.6	2.4	2.9	3.8	
W	.6	.8	.1	.0	.0	.0		1.5	4.3	1.2	.0	1.8	2.5	.6	1.2	2.1	1.6	
NW	.5	.7	.0	.0	.0	.0		1.2	4.4	.6	.0	1.0	3.3	.8	3.7	1.2	.5	
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	3.1							3.1	.0	2.8	.0	3.5	4.6	2.8	.0	3.5	1.8	
TOT OBS	310	1453	923	87	12	0	2785		9.8	545	31	570	302	532	41	542	222	
TOT PCT	11.1	52.2	33.1	3.1	.4	.0		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	

TABLE 3A

WIND DIR	0-6	WIND SPEED (KNOTS)				41+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)			
		7-16	17-27	28-40	00 03					06 09	12 15	18 21	
N	.8	.1	.0	.0	.0	.9	3.8	.0	1.1	1.4	.9		
NE	.5	.2	.0	.0	.0	.7	5.6	.3	.5	1.8	.4		
E	1.4	1.7	.4	.1	.0	3.5	9.4	1.8	3.7	3.7	4.5		
SE	12.1	32.2	7.9	.9	.0	53.0	11.2	51.5	50.9	55.5	54.7		
S	10.6	19.0	2.8	.2	.0	32.6	9.5	37.8	32.3	30.7	30.5		
SW	1.7	1.6	.1	.0	.0	3.4	6.9	4.3	3.7	2.6	3.1		
W	1.4	.1	.0	.0	.0	1.5	4.3	1.1	2.0	.7	1.9		
NW	1.0	.2	.0	.0	.0	1.2	4.4	.5	1.8	1.0	1.0		
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
CALM	3.1					3.1	.0	2.8	3.9	2.6	3.0		
TOT OBS	909	1555	311	30	0	2785	9.8	576	872	573	764		
TOT PCT	32.6	55.1	11.2	1.1	.0	100.0		100.0	100.0	100.0	100.0		

PERIOD: (PRIMARY) 1970-1977
(OVER-ALL) 1855-1977

JULY

AREA 0032 LIMA
11.45 78.3W

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)				MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47	48+			
0000Z	2.6	4.9	56.3	32.1	3.6	.5	.0	10.2	100.0	576
0600Z	3.9	8.8	53.2	30.6	3.0	.5	.0	9.5	100.0	872
1200Z	2.6	8.6	48.7	37.5	2.3	.3	.0	10.0	100.0	573
1800Z	3.0	9.0	50.4	33.5	3.5	.4	.0	9.7	100.0	764
TOT	87	223	1453	923	87	12	0	9.8		2785
PCT	3.1	8.0	52.2	33.1	3.1	.4	.0		100.0	

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8-10	TOTAL OBS	MEAN CLOUD COVER
N	.0	.0	.1	.2		7.7
NE	.0	.0	.0	.1		7.8
E	.1	.0	.3	1.8		7.4
SE	2.5	2.4	10.4	40.7		7.2
S	2.9	1.2	4.8	27.2		7.0
SW	.1	.1	.1	1.3		7.1
W	.1	.0	.1	.3		6.7
NW	.0	.0	.0	.2		8.0
VAR	.0	.0	.0	.0		.0
CALM	.1	.0	.0	2.6		7.7
TOT OBS	91	33	142	457	893	7.1
TOT PCT	5.6	3.7	16.1	74.4	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8)
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

000	150	300	600	1000	2000	3500	5000	6500	8000+	NH <5/8 ANY HGT	TOTAL OBS
149	299	599	999	1999	3499	4999	6499	7999			
.0	.0	.0	.1	.1	.1	.0	.0	.0	.0	.0	
.0	.0	.0	.1	.1	.0	.0	.0	.0	.0	.0	
.0	.0	.1	.5	1.3	.1	.1	.0	.0	.0	.0	.2
.2	1.0	2.4	14.6	23.0	5.5	1.4	.5	.3	.1	7.4	
.5	.3	1.6	6.7	14.2	5.0	1.6	.1	.0	.4	5.7	
.0	.0	.0	.4	.7	.0	.0	.0	.0	.1	.2	
.0	.0	.0	.2	.2	.0	.0	.0	.0	.0	.1	
.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
.0	.0	.1	.4	1.7	.2	.0	.0	.0	.0	.2	
.6	11	37	204	764	97	28	6	3	5	122	883
.7	1.2	4.2	23.1	41.2	11.0	3.2	.7	.3	.6	13.8	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE
OF CEILING HEIGHT (NH >4/8) AND VSBY (NH)

CEILING (FEET)	VSBY (NH)							
	>10	>5	>2	>1	>1/2	>1/4	>50YD	>0
# NH >4500	.6	.8	.9	.9	.9	.9	.9	.9
# NH >3000	1.1	1.5	1.6	1.6	1.6	1.6	1.6	1.6
# NH >2500	3.9	4.6	4.8	4.8	4.8	4.8	4.8	4.8
# NH >2000	12.2	15.3	15.8	15.8	15.8	15.8	15.8	15.8
# NH >1000	42.7	55.7	56.9	56.9	56.9	56.9	56.9	56.9
# NH >600	58.5	78.4	80.0	80.0	80.1	80.1	80.1	80.1
# NH >300	61.1	82.4	84.2	84.2	84.3	84.3	84.3	84.3
# NH >150	61.4	83.6	85.5	85.5	85.6	85.6	85.6	85.6
# NH >0	61.5	83.9	86.0	86.1	86.2	86.2	86.2	86.2
TOTAL	550	750	769	770	771	771	771	771

TOTAL NUMBER OF OBS 894

PCT FREQ NH <5/8 13.8

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	OBS	TOTAL OBS
4.2	1.8	2.2	2.4	3.1	2.4	5.5	10.0	68.0	.3	996

PERIOD: (PRIMARY) 1920-1977
(OVER-ALL) 1855-1977

JULY

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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSRY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NN PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1
1/2<1	PCP	.0	.0	.0	.2	.1	.0	.0	.0	.0	.0	.0	.2
	NN PCP	.0	.0	.0	.2	.1	.0	.0	.0	.0	.0	.0	.3
	TOT %	.0	.0	.0	.4	.2	.0	.0	.0	.0	.0	.0	.5
1<2	PCP	.0	.0	.0	.1	.2	.0	.0	.0	.0	.0	.0	.3
	NN PCP	.0	.0	.0	.3	.2	.0	.0	.0	.0	.0	.0	.5
	TOT %	.0	.0	.0	.4	.4	.0	.0	.0	.0	.0	.0	.8
2<5	PCP	.0	.0	.0	.2	.4	.0	.0	.0	.0	.0	.1	.7
	NN PCP	.0	.0	.1	1.6	1.2	.1	.0	.0	.0	.0	.0	3.1
	TOT %	.0	.0	.1	1.9	1.6	.1	.0	.0	.0	.0	.1	3.8
5<10	PCP	*	*	.1	1.2	.5	.1	.0	.0	.0	.0	1.9	
	NN PCP	.2	.4	.9	11.7	10.1	1.1	.2	.4	.0	1.2	26.2	
	TOT %	.3	.4	1.0	12.9	10.6	1.2	.2	.4	.0	1.2	28.1	
10+	PCP	.0	.0	.0	.5	.1	.0	.0	.0	.0	.0	.0	.6
	NN PCP	.2	.4	1.8	36.1	24.3	1.2	1.0	.2	.0	.8	66.0	
	TOT %	.2	.4	1.8	36.7	24.3	1.2	1.0	.2	.0	.8	66.6	
TOT OBS													1297
TOT PCT		.5	.8	2.9	52.1	37.2	2.6	1.2	.6	.0	2.2	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED
WITH VARYING VALUES OF VISIBILITY

VSRY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1	
1/2<1	0-3	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1	
	4-10	.0	.0	.0	.1	.1	.0	.0	.0	.0	.0	.2	
	11-21	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.2	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.4	.1	.0	.0	.0	.0	.0	.5	
1<2	0-3	.0	.0	.0	*	*	.0	.0	.0	.0	.0	.1	
	4-10	.0	.0	.0	.3	.4	.1	.0	.0	.0	.0	.7	
	11-21	.0	.0	.0	.1	.2	.0	.0	.0	.0	.0	.2	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.4	.6	.1	.0	.0	.0	.0	1.1	
2<5	0-3	.0	.0	.0	*	.1	.0	.0	.1	.0	.1	.2	
	4-10	.0	.0	.1	1.0	1.1	.1	.0	.1	.0	.0	2.4	
	11-21	.0	.0	.0	.9	.3	.0	.0	.0	.0	.0	1.1	
	22+	.0	.0	.0	.1	.1	.0	.0	.0	.0	.0	.1	
	TOT %	.0	.0	.1	2.0	1.5	.1	.0	.1	.0	.1	3.8	
5<10	0-3	.1	*	.1	.6	.4	.2	.1	.1	.0	1.2	2.8	
	4-10	.1	.2	.5	5.7	5.3	.8	.1	.2	.0	.0	13.0	
	11-21	.0	.1	.1	5.0	3.2	.2	.0	.0	.0	.0	8.5	
	22+	.0	.0	.1	.4	.2	.0	.0	.0	.0	.0	.8	
	TOT %	.2	.4	.9	11.8	9.1	1.1	.2	.3	.0	1.2	25.1	
10+	0-3	.1	.3	.2	1.0	1.6	.7	.2	.0	.0	1.7	5.7	
	4-10	.1	.1	.8	15.6	15.4	1.6	.7	.3	.0	.0	34.6	
	11-21	.0	.0	.6	18.0	8.7	.2	*	.0	.0	.0	27.5	
	22+	.0	.0	*	1.5	.1	.0	.0	.0	.0	.0	1.6	
	TOT %	.2	.3	1.6	36.1	25.8	2.4	1.0	.3	.0	1.7	69.4	
TOT OBS													1615
TOT PCT		.4	.7	2.6	50.6	37.1	3.7	1.1	.7	.0	3.0	100.0	

PERIOD: (PRIMARY) 1920-1977
(OVER-ALL) 1855-1977

JULY

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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NM >4/8) AND
OCCURRENCE OF NM <5/8 BY HOUR

HOURL (GMT)	0-0	1-0	3-0	6-0	10-0	20-0	30-0	50-0	60-0	80-0+	TOTAL	NM <5/8 ANY HGT	TOTAL OBS
00003	.9	.5	1.9	22.2	37.0	7.9	3.2	.5	.5	1.4	75.9	24.1	216
06009	.5	.5	4.6	22.6	39.2	14.3	4.6	.5	.0	.0	86.6	13.4	217
12015	1.1	2.3	5.7	23.9	43.6	11.4	2.3	.8	.8	.0	91.7	8.3	264
18021	.0	1.4	4.2	22.2	41.5	9.9	2.8	.9	.0	.9	84.0	16.0	212
TOT	6	11	34	207	398	99	29	6	3	5	772	137	909
PCT	.7	1.2	4.2	22.8	40.5	10.9	3.2	.7	.3	.6	84.9	15.1	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOURL (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.0	.8	1.4	2.7	21.6	73.5	370
06009	.0	1.1	1.9	4.3	26.0	66.7	469
12015	.2	.0	1.0	5.2	27.9	65.7	405
18021	.0	.5	.7	4.2	24.3	70.3	407
TOT	1	10	21	48	414	1137	1651
PCT	.1	.6	1.3	4.1	25.1	68.9	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR
CEILING HGT (FEET, NM >4/8) BY HOUR

HOURL (GMT)	<150 AND 5/8	<600 AND 5/8	<1000 AND 5/8	1000+ AND 5/8	NM <5/8 AND 5/8	TOTAL OBS
00003	1.0	3.3	27.1	50.5	22.4	210
06009	.5	6.1	29.4	58.4	12.1	216
12015	1.1	9.2	35.9	56.9	7.3	262
18021	.0	5.8	29.3	56.7	13.9	208
TOT	6	56	275	498	121	894
PCT	.7	6.3	30.8	55.7	13.5	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
80/84	.0	.0	.0	.1	.0	.0	.0	.0	1	.1
75/79	.0	.0	.0	.3	.1	.3	.1	.0	8	.7
70/74	.0	.0	.1	.3	1.3	2.2	1.0	1.0	68	5.9
65/69	.0	.0	.0	.7	2.7	10.6	10.9	3.8	322	28.1
60/64	.0	.0	.0	.0	1.3	14.2	29.9	11.4	690	56.8
55/59	.0	.0	.0	.0	.0	.2	3.8	4.3	94	8.2
50/54	.0	.0	.0	.0	.0	.0	.1	.0	1	.1
TOTAL	0	0	1	9	62	314	524	234	1144	100.0
PCT	.0	.0	.1	.8	5.4	27.4	45.8	20.5		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.0	.0	.0	.1	.0	.0	.0	.0	.0	.0
.0	.0	.0	.4	.3	.0	.0	.0	.0	.0
.0	.0	.3	3.4	2.0	.1	.1	.0	.0	.0
.1	.2	.9	15.1	11.1	.4	.3	.1	.0	.1
.1	.3	1.0	32.2	20.0	1.3	.8	.2	.0	.9
.2	.3	.2	3.5	3.3	.5	.1	.1	.0	.0
.0	.0	.0	.0	.0	.0	.1	.0	.0	.0
.4	.8	2.5	54.7	36.6	2.4	1.3	.4	.0	1.0

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOURL (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	78	72	69	64	60	58	58	63.7	571
06009	73	70	67	62	58	57	52	62.3	864
12015	75	71	68	62	58	57	56	62.5	578
18021	80	75	71	64	60	58	57	65.2	718
TOT	80	73	69	62	59	57	52	63.4	2731

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOURL (GMT)	0-29	30-39	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	.3	8.7	25.3	47.1	18.7	82	289
06009	.0	.0	2.1	26.0	50.0	21.9	84	292
12015	.0	.0	2.8	23.9	46.0	27.3	84	322
18021	.0	3.5	9.3	35.5	38.2	13.5	79	259
TOT	0	10	64	318	529	241	82	1162

PERIOD: (PRIMARY) 1920-1977
(OVER-ALL) 1884-1977

JULY

TABLE 17

AREA 0032 LIMA
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PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	49 52	53 56	57 60	61 64	65 68	69 72	73 76	77 80	TOT	% FOG	% FOG
17/19	.0	.0	.0	.0	.0	.1	.0	.0	1	.0	.1
14/16	.0	.0	.0	.0	.1	.0	.0	.0	1	.0	.1
11/13	.0	.0	.0	.3	.0	.2	.1	.1	8	.0	.7
9/10	.0	.0	.1	.1	.3	.0	.1	.2	8	.0	.7
7/8	.0	.0	.2	.2	.4	.1	.4	.0	13	.0	1.3
6	.0	.0	.0	.0	.5	.5	.1	.0	13	.0	1.1
5	.0	.0	.0	.3	.4	.7	.0	.2	14	.1	1.5
4	.0	.0	.2	1.0	1.3	.5	.1	.0	36	.2	2.9
3	.0	.0	.3	.9	1.5	.3	.3	.0	39	.1	3.2
2	.0	.0	.4	2.1	2.1	.9	.3	.0	68	.2	5.6
1	.0	.0	1.5	4.3	3.3	.9	.2	.0	121	.3	10.1
0	.0	.0	3.7	8.6	3.7	.9	.0	.0	197	.3	16.6
-1	.0	.1	3.2	8.4	3.2	.9	.0	.0	184	.3	15.2
-2	.0	.3	2.1	7.3	3.6	.9	.1	.0	167	.2	14.1
-3	.0	.0	.9	6.6	2.0	.4	.0	.0	116	.1	9.8
-4	.0	.1	1.5	3.8	1.2	.3	.0	.0	81	.1	6.8
-5	.0	.0	.9	3.0	1.1	.3	.0	.0	62	.1	5.2
-6	.0	.0	.3	1.0	.0	.0	.0	.0	22	.0	1.9
-7/-10	.1	.0	.3	1.4	.2	.0	.0	.0	11	.1	.9
-9/-10	.0	.0	.1	.1	.0	.0	.0	.0	2	.0	.2
TOTAL	1	5	182	569	298	92	5	5	1170	2.1	114.6
PCT	.1	.4	15.6	48.6	25.5	7.9	1.5	.4	100.0	2.1	97.9

PERIOD: (OVER-ALL) 1963-1977

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.2
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.0	.0	.0	.0	.0	.0	.2	.2	.0	.0	.0	.0	.4
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.0	.0	.0	.0	.0	.0	.2	.4	.0	.0	.0	.0	.6

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.3	.0	.0	.0	.0	.3	.2	1.6	.2	.0	.0	.0	2.0
1-2	.0	.5	.0	.0	.0	.0	.8	.4	9.7	4.6	.0	.0	.0	14.7
3-4	.0	.3	.0	.0	.0	.0	.7	.2	8.3	14.4	.0	.0	.0	22.9
5-6	.0	.0	.1	.1	.0	.0	.3	.0	2.1	10.0	1.9	.0	.0	14.0
7	.0	.0	.1	.0	.0	.0	.1	.2	.0	4.4	.2	.0	.0	4.8
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	.0	.0	.0	.3
10-11	.0	.0	.0	.2	.0	.0	.2	.0	.0	.2	.2	.0	.0	.4
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	1.1	.9	.3	.0	.0	2.4	1.0	21.7	34.1	2.3	.0	.0	59.2

PERIOD: (OVER-ALL) 1963-1977

JULY

AREA 0032 LIMA
11.45 78.34

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.5	1.6	.7	.0	.0	.0	2.4	.0	.0	.0	.0	.0	.0	.0
1-2	.5	8.7	2.4	.0	.0	.0	11.6	.0	.5	.0	.0	.0	.0	1.2
3-4	.0	5.7	5.5	.0	.0	.0	11.1	.0	.6	.2	.0	.0	.0	.8
5-6	.0	.6	5.2	.3	.0	.0	6.1	.0	.0	.2	.0	.0	.0	.2
7	.0	.2	1.4	.0	.0	.0	1.7	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.4	.2	.0	.0	.5	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.2	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.2	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.9	16.8	15.4	.5	.0	.0	33.8	.6	1.2	.4	.0	.0	.0	2.3

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	.3	.0	.0	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.0	.1	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.3	.1	.0	.0	.0	.4	.0	.0	.0	.0	.0	.0	.0	98.8

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	2.5	4.1	.4	.0	.0	.0	7.0	
1-2	1.6	19.4	7.4	.0	.0	.0	28.3	
3-4	.6	15.0	20.4	.0	.0	.0	35.9	
5-6	.0	2.7	15.3	2.3	.0	.0	20.4	
7	.2	.2	6.0	.2	.0	.0	6.6	
8-9	.0	.0	.6	.2	.0	.0	.8	
10-11	.0	.0	.4	.4	.0	.0	.8	
12	.0	.0	.2	.0	.0	.0	.2	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	4.9	41.4	50.7	3.1	.0	.0	100.0	515

PERIOD: (OVER-ALL) 1950-1977

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	1.5	7.8	13.5	10.0	2.1	.2	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	286
6-7	.0	.2	6.2	9.3	9.9	3.5	2.1	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	253
8-9	.0	.1	1.2	3.1	5.9	3.0	1.5	.7	1.1	.0	.1	.2	.0	.0	.0	.0	.0	.0	.0	.0	138
10-11	.0	.1	1.9	.4	1.5	.7	.4	.4	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	44
12-13	.0	.0	.9	.5	1.1	.2	.2	.4	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	28
>13	.0	.0	.0	.1	.5	.5	.1	.1	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	13
INDGT	1.1	1.7	1.1	.4	.5	.4	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	45
TOTAL	21	81	200	102	174	69	49	14	14	0	1	2	0	0	0	0	0	0	0	0	807
PCT	2.6	10.0	24.8	12.6	21.6	8.6	4.8	1.7	1.7	.0	.1	.2	.0	.0	.0	.0	.0	.0	.0	.0	100.0

PERIOD: (PRIMARY) 1920-1977
(OVER-ALL) 1859-1977

AUGUST

AREA 0032 LIMA
11.35 78.2W

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN CHWK	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMDKE HAZE	SPRAY BLWG DUST BLWG SNOW	NO SIG WEA
N	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
E	.0	.0	.0	.0	.0	.0	.0	.0	4.4	.0	.0	.0	7.7	.0	87.9
SE	.5	.3	1.6	.0	.0	.0	.0	2.3	1.8	.0	.9	.0	2.0	.0	92.9
S	.0	.7	1.5	.0	.0	.0	.0	2.2	1.1	.2	2.2	.2	2.1	.0	92.1
SW	.0	.0	2.2	.0	.0	.0	.0	2.2	.0	.0	2.8	.0	.0	.0	95.0
W	.0	.0	.0	.0	.0	.0	.0	.0	9.1	.0	.0	.0	.0	.0	90.9
NW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	5.0	.0	.0	.0	.0	5.0	.0	.0	5.0	.0	2.5	.0	87.5
TOT PCT	.2	.4	1.6	.0	.0	.0	.0	2.3	1.5	.1	1.6	.1	2.0	.0	92.5
TOT OBS:	1236														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN CHWK	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMDKE HAZE	SPRAY BLWG DUST BLWG SNOW	NO SIG WEA
00003	1.0	.6	.6	.0	.0	.0	.0	2.2	1.3	.3	1.3	.0	1.9	.0	93.0
06009	.0	.0	1.6	.0	.0	.0	.0	1.6	.4	.0	1.0	.0	1.3	.0	95.6
12015	.0	.6	3.2	.0	.0	.0	.0	3.8	3.2	.0	2.2	.0	1.9	.0	88.9
18021	.0	.3	1.6	.0	.0	.0	.0	1.9	.9	.0	2.2	.3	2.8	.0	91.9
TOT PCT	.2	.4	1.7	.0	.0	.0	.0	2.4	1.5	.1	1.7	.1	2.0	.0	92.3
TOT OBS:	1264														

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)						
	0-3	4-10	11-21	22-33	34-47	48+	00				03	06	09	12	15	18	21
N	.2	.3	.1	.0	.0	.0	.0	.5	6.3	.1	.0	.7	.6	.9	.0	.5	.3
NE	.3	.3	.1	.0	.0	.0	.0	.7	4.8	.6	.0	.4	1.4	.9	.0	.5	.3
E	.4	.0	1.1	.0	.0	.0	.0	2.5	10.0	1.5	7.0	2.1	3.3	2.6	6.3	3.0	1.9
SE	2.3	27.3	21.3	3.2	.0	.0	.0	49.1	11.7	47.4	52.3	46.9	45.5	53.2	52.1	53.4	42.3
S	3.0	27.8	10.5	1.2	.0	.0	.0	37.5	9.4	43.1	22.7	40.8	36.1	31.9	29.9	34.2	41.8
SW	1.0	7.9	.5	.0	.0	.0	.0	4.5	6.8	4.8	11.7	4.2	3.9	3.9	6.3	3.2	8.0
W	.5	.7	.1	.0	.0	.0	.0	1.2	5.7	1.0	.0	1.0	1.7	1.2	.0	1.0	3.4
NW	.2	.4	.1	.0	.0	.0	.0	.7	5.7	.1	3.1	1.0	1.9	.5	2.8	.3	.8
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	3.3	.0	.0	.0	.0	.0	.0	3.3	.0	1.5	3.1	2.9	5.6	4.9	2.8	4.0	1.5
TOT OBS	296	1744	896	118	1	0	0	2657	10.0	551	32	518	287	489	36	550	194
TOT PCT	11.1	50.7	33.7	4.4	.0	.0	.0	100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	0-6	WIND SPEED (KNOTS)				41+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)			
		7-16	17-27	28-40	00 03					06 09	12 15	18 21	
N	.3	.2	*	.0	.0	.5	6.3	.1	.7	.9	.4		
NE	.6	.1	*	.0	.0	.7	4.8	.6	.8	.9	.5		
E	1.0	1.0	.5	.0	.0	2.5	10.0	1.8	2.5	2.9	2.7		
SE	10.7	28.0	9.9	.5	.0	49.1	11.7	47.7	46.4	53.1	50.5		
S	13.2	20.4	3.8	.1	.0	37.5	9.4	41.9	39.1	31.7	36.2		
SW	2.6	1.8	.1	*	.0	4.5	6.8	5.1	4.1	4.1	4.7		
W	.9	.3	.1	.0	.0	1.2	5.7	.9	1.2	1.1	1.6		
NW	.5	.1	*	.0	.0	.7	5.7	.3	1.3	.6	.4		
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
CALM	3.3					3.3	.0	1.5	3.9	4.8	3.1		
TOT OBS	877	1379	384	17	0	2657	10.0	583	805	525	744		
TOT PCT	33.0	51.9	14.5	.6	.0		100.0	100.0	100.0	100.0	100.0		

PERIOD: (PRIMARY) 1920-1977
(OVER-ALL) 1855-1977

AUGUST

AREA 0032 LIMA
11.35 78.2W

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)				MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47	48+			
0000Z	1.5	7.2	48.5	36.5	6.0	.2	.0	10.8	100.0	583
0600Z	3.9	7.8	52.7	31.8	3.9	.0	.0	9.6	100.0	805
1200Z	4.8	7.0	51.2	33.3	3.6	.0	.0	9.7	100.0	525
1800Z	3.1	8.9	49.7	33.9	4.4	.0	.0	9.8	100.0	744
TOT	98	208	1346	896	118	1	0	10.0		2657
PCT	3.3	7.8	50.7	33.7	4.4	*	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	.0	.0	.0	.4		8.0
NE	.0	.0	.1	.2		7.0
E	.2	.0	.5	1.4		6.9
SE	2.2	1.9	8.9	30.2		7.3
S	3.2	1.4	7.3	28.0		7.0
SW	.4	*	.3	1.5		6.2
W	.1	.0	.0	.4		6.6
NW	.0	.0	.1	.1		7.0
VAR	.0	.0	.0	.0		.0
CALM	.1	.0	.1	2.0		7.5
TOT OBS	53	28	148	427	856	7.1
TOT PCT	6.2	3.3	17.3	73.2	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NM >4/8)
AND OCCURRENCE OF NM <5/8 BY WIND DIRECTION

	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NM <5/8 ANY HGT	TOTAL OBS
N	.0	.0	.0	.1	.3	.1	.1	.0	.0	.0	.0	.0
NE	.0	.0	.0	.0	.1	.1	.1	.0	.0	.0	.0	.0
E	.0	.0	.0	.1	.7	.5	.2	.0	.0	.0	.1	.5
SE	.1	1.1	1.9	13.3	20.1	7.2	1.9	.1	.0	.2	6.1	35.6
S	.3	.6	1.5	8.8	14.5	5.2	1.7	.2	.0	.3	6.7	35.6
SW	.0	.0	*	.3	1.3	.1	.0	*	.0	.0	.5	2.6
W	.0	.0	.0	.1	.2	.0	.0	.0	.0	.0	.1	1.1
NW	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1	1.1
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.2	.4	.9	.6	.0	.0	.0	.0	.1	2.1
TOT OBS	4	15	31	198	327	118	34	3	0	5	121	856
TOT PCT	.5	1.8	3.6	23.1	38.2	13.8	4.0	.4	.0	.6	14.1	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE
OF CEILING HEIGHT (NM >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)							
	= OR >10	= OR >5	= OR >2	= OR >1	= OR >1/2	= OR >1/4	= OR >50YD	= OR >0
= NM >6500	.3	.6	.6	.6	.6	.6	.6	.6
= NM >5000	.6	.9	.9	.9	.9	.9	.9	.9
= NM >3500	4.0	4.7	4.9	4.9	4.9	4.9	4.9	4.9
= NM >2000	14.5	18.6	18.8	18.8	18.8	18.8	18.8	18.8
= NM >1000	42.7	56.2	57.1	57.1	57.1	57.1	57.1	57.1
= NM >600	56.9	78.6	80.2	80.2	80.2	80.2	80.2	80.2
= NM >300	59.1	82.2	83.9	83.9	83.9	83.9	83.9	83.9
= NM >150	59.9	83.7	85.5	85.7	85.7	85.7	85.7	85.7
= NM >0	60.0	84.0	86.0	86.1	86.1	86.1	86.1	86.1
TOTAL	519	727	744	745	745	745	745	745

TOTAL NUMBER OF OBS: 865

PCT FREQ NM <5/8: 13.9

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	OBSCD	TOTAL OBS
3.7	3.3	2.9	3.2	2.1	3.3	7.1	13.9	61.2	.1	939

PERIOD: (PRIMARY) 1920-1977
(OVER-ALL) 1955-1977

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11.35 78.2W

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VISBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NN PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NN PCP	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1	
	TOT %	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1	
1<2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NN PCP	.0	.0	.0	.0	.3	.0	.0	.0	.0	.0	.3	
	TOT %	.0	.0	.0	.0	.3	.0	.0	.0	.0	.0	.3	
2<5	PCP	.0	.0	.0	.1	.3	.0	.0	.0	.0	.1	.4	
	NN PCP	.0	.1	.0	1.2	1.7	.1	.0	.1	.0	.0	3.2	
	TOT %	.0	.1	.0	1.3	2.0	.1	.0	.1	.0	.1	3.6	
5<10	PCP	.0	.0	.0	.9	.5	.1	.0	.0	.0	.1	1.6	
	NN PCP	.2	.3	.7	11.4	10.3	.7	.3	.2	.0	1.3	25.3	
	TOT %	.2	.3	.7	12.3	10.8	.8	.3	.2	.0	1.3	26.9	
10+	PCP	.0	.0	.0	.2	.1	.0	.0	.0	.0	.0	.3	
	NN PCP	.3	.4	1.3	33.7	28.5	2.0	.6	.1	.0	1.9	68.8	
	TOT %	.3	.4	1.3	33.9	28.6	2.0	.6	.1	.0	1.9	69.2	
TOT OBS													1187
TOT PCT		.5	.6	1.9	47.5	41.8	2.9	.9	.4	.0	3.4	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED
WITH VARYING VALUES OF VISIBILITY

VISBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1	
1<2	0-3	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1	.1	
	4-10	.0	.1	.0	.0	.1	.0	.0	.0	.0	.0	.2	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.1	.0	.0	.2	.0	.0	.0	.0	.1	.4	
2<5	0-3	.0	.1	.0	.2	.2	.0	.0	.1	.0	.2	.7	
	4-10	.0	.0	.0	.6	1.0	.2	.0	.0	.0	.0	1.8	
	11-21	.0	.0	.0	.3	.7	.0	.0	.0	.0	.0	1.1	
	22+	.0	.0	.0	.1	.1	.0	.0	.0	.0	.0	.2	
	TOT %	.0	.1	.0	1.4	1.9	.2	.0	.1	.0	.2	3.9	
5<10	0-3	.1	.1	.1	.4	.7	.4	.2	.1	.0	1.2	3.3	
	4-10	.1	.3	.3	5.4	6.0	.2	.1	.1	.0	.0	12.1	
	11-21	.1	.1	.3	4.9	3.5	.1	.0	.0	.0	.0	9.0	
	22+	.0	.0	.0	1.3	.5	.0	.0	.0	.0	.0	1.8	
	TOT %	.2	.2	.7	12.0	10.7	.7	.2	.1	.0	1.2	26.2	
10+	0-3	.2	.2	.4	.9	1.6	.3	.2	.1	.0	1.9	5.6	
	4-10	.2	.5	.5	13.0	18.2	1.6	.5	.2	.0	.0	32.4	
	11-21	.1	.3	.3	16.8	9.9	.5	.1	.0	.0	.0	27.7	
	22+	.0	.0	.0	2.2	1.4	.1	.0	.0	.0	.0	3.7	
	TOT %	.2	.4	1.2	33.0	29.0	2.3	.9	.2	.0	1.9	69.5	
TOT OBS													1402
TOT PCT		.4	.8	1.9	46.5	42.0	3.5	1.1	.4	.0	3.4	100.0	

PERIOD: (PRIMARY) 1920-1977
(OVER-ALL) 1855-1977

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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NH > 4/8) AND
OCCURRENCE OF NH < 5/8 BY HOUR

HOURL (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL DBS	NH < 5/8 ANY HGT	TOTAL DBS
00003	.0	1.8	2.2	21.3	35.1	11.6	4.0	.4	.0	.0	76.4	23.6	225
06009	.0	2.6	2.1	23.2	37.6	12.9	5.2	.5	.0	1.0	85.1	14.9	194
12015	1.3	.8	4.2	25.4	43.6	12.7	3.8	.4	.0	.4	92.8	7.2	236
18021	.4	1.7	5.7	20.4	33.9	17.4	2.6	.0	.0	.9	83.0	17.0	230
TOT	4	15	32	200	333	121	34	3	0	5	747	138	885
PCT	.5	1.7	3.6	22.6	37.6	13.7	3.8	.3	.0	.6	84.4	15.6	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOURL (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL DBS
00003	.0	.0	.3	3.5	24.4	71.8	340
06009	.0	.3	1.0	4.6	26.1	68.0	391
12015	.0	.0	1.2	4.5	28.5	65.9	337
18021	.3	.0	.3	3.0	28.2	68.2	362
TOT	1	1	10	56	383	979	1430
PCT	.1	.1	.7	3.9	26.8	68.5	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR
CEILING HGT (FEET, NH > 4/8) BY HOUR

HOURL (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND 5+	NH < 5/8 AND 5+	TOTAL DBS
00003	.0	4.2	26.9	53.2	19.9	216
06009	.0	4.7	29.3	58.1	12.6	191
12015	1.3	6.4	33.9	60.1	6.0	233
18021	.4	8.0	32.0	53.3	14.7	225
TOT	4	51	265	486	114	865
PCT	.5	5.9	30.6	56.2	13.2	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL DBS	PCT FREQ
75/79	.0	.0	.0	.0	.1	.0	.1	.0	2	.2
70/74	.0	.0	.0	.0	1.1	1.9	.7	.4	41	4.0
65/69	.0	.0	.0	.1	2.1	0.3	4.1	2.1	200	19.6
60/64	.0	.0	.0	.1	1.2	16.3	35.7	13.5	681	66.8
55/59	.0	.0	.0	.0	.0	.4	4.3	4.7	96	9.4
TOTAL	0	0	0	2	45	284	478	211	1020	100.0
PCT	.0	.0	.0	.2	4.4	27.8	46.9	20.7		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
75/79	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0
70/74	.0	.1	.1	2.2	1.6	.1	.0	.0	.0	.0
65/69	.1	.2	.6	9.6	8.0	.4	.2	.0	.0	.5
60/64	.3	.5	1.2	34.2	24.6	2.7	.4	.3	.0	2.6
55/59	.1	.8	.0	4.0	4.3	.4	.2	.1	.0	.3
TOTAL	.5	.8	1.8	50.1	38.5	3.6	.8	.4	.0	3.4

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOURL (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL DBS
00003	80	70	67	62	59	57	54	62.6	281
06009	72	68	66	61	58	57	55	61.4	823
12015	73	69	67	62	59	58	54	62.0	528
18021	79	74	71	64	60	54	57	64.7	693
TOT	80	72	68	62	59	57	54	62.7	2625

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOURL (GMT)	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	MEAN	TOTAL DBS
00003	.0	.0	1.4	29.6	52.9	16.1	84		84	280
06009	.0	.0	2.4	22.4	53.1	22.0	84		84	245
12015	.0	.0	2.3	24.9	47.9	24.9	84		84	261
18021	.0	.8	11.9	33.7	32.9	20.6	80		80	292
TOT	0	2	46	288	486	216	83		1038	

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PERIOD: (PRIMARY) 1920-1977
(OVER-ALL) 1854-1977AREA 0032 LIMA
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TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	53 56	57 60	61 64	65 68	69 72	73 76	77 80	TOT	W FOG	W0 FOG
17/19	.0	.0	.0	.0	.0	.0	.1	1	.0	.1
14/16	.0	.0	.0	.0	.1	.1	.0	1	.0	.1
11/13	.0	.0	.1	.1	.1	.1	.0	4	.0	.4
9/10	.0	.0	.1	.1	.4	.3	.0	9	.0	.8
7/8	.0	.0	.3	.4	.5	.1	.0	13	.1	1.1
6	.0	.5	.2	1.0	.5	.0	.0	23	.0	2.1
5	.0	.1	.2	1.7	.7	.2	.0	31	.0	2.9
4	.0	.1	.9	2.0	.6	.1	.0	40	.0	3.7
3	.0	.3	2.0	1.8	.2	.0	.0	47	.1	4.2
2	.0	.7	3.7	1.8	.3	.1	.0	72	.2	6.4
1	.0	1.0	6.4	2.8	.3	.0	.0	114	.4	10.1
0	.0	3.3	11.6	2.4	.8	.0	.0	201	.1	18.4
-1	.1	3.9	8.4	2.1	.2	.0	.0	159	.0	14.6
-2	.0	4.0	6.7	2.3	.3	.0	.0	165	.2	15.0
-3	.0	2.1	4.1	1.4	.3	.1	.0	86	.0	7.9
-4	.0	1.7	1.8	.5	.0	.0	.0	43	.1	3.9
-5	.1	1.0	1.8	.6	.0	.0	.0	46	.1	4.1
-6	.0	.5	.6	.1	.1	.0	.0	14	.0	1.3
-7/-8	.0	.4	.3	.5	.0	.0	.0	12	.0	1.1
-9/-10	.0	.2	.3	.0	.0	.0	.0	5	.0	.5
TOTAL	2	213	559	238	62	11	1	1086	1.2	98.8
PCT	.2	19.6	51.5	21.9	5.7	1.0	.1	100.0	1.2	98.8

PERIOD: (OVER-ALL) 1963-1977

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.2	.2	.0	.0	.0	.0	.5	.2	.0	.0	.0	.0	.0	.2
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	.0	.0	.0	.3
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.2	.2	.2	.0	.0	.0	.7	.2	.0	.3	.0	.0	.0	.5

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.2	.2	.0	.0	.0	.0	.4	.1	1.8	.0	.0	.0	.0	1.8
1-2	.2	.7	.6	.0	.0	.0	1.5	.4	10.3	7.0	.0	.0	.0	17.6
3-4	.0	.0	.6	.0	.0	.0	.6	.0	4.5	10.2	1.0	.0	.0	15.6
5-6	.0	.0	.2	.0	.0	.0	.2	.0	.8	8.4	1.3	.0	.0	10.7
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	3.6	2.8	.0	.0	6.3
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.2	.2	.2	.0	.0	.7
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.2	.2	1.0	.0	.0	1.3
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.2	.0	.0	.5
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.2
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.4	.9	1.4	.0	.0	.0	2.7	.4	17.6	30.1	6.8	.0	.0	54.8

PERIOD: (OVER-ALL) 1963-1977

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TABLE 18 (CONT)

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PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.2	2.4	.5	.0	.0	.0	3.1	.0	.3	.0	.0	.0	.0	.3
1-2	.4	10.7	2.1	.0	.0	.0	13.2	.0	.3	.0	.0	.0	.0	.5
3-4	.0	4.9	7.3	.5	.0	.0	12.7	.0	.3	.0	.0	.0	.0	.5
5-6	.0	1.1	3.4	.4	.0	.0	4.9	.0	.0	.1	.0	.0	.0	.1
7	.0	.5	1.4	.6	.0	.0	2.7	.0	.0	.1	.0	.0	.0	.1
8-9	.0	.2	1.0	.0	.0	.0	1.3	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.2	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.7	19.8	15.9	1.7	.0	.0	34.0	.0	1.1	.2	.0	.0	.0	1.3

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.2	.0	.0	.0	.0	.2	.0	.1	.0	.0	.0	.0	.1	.1
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.2	.2	.0	.0	.0	.4	.0	.1	.0	.0	.0	.0	.1	98.6

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	2.2	4.8	.5	.0	.0	.0	7.5	
1-2	1.0	22.4	9.6	.0	.0	.0	33.0	
3-4	.2	9.6	18.8	1.4	.0	.0	30.1	
5-6	.0	1.9	12.3	1.7	.0	.0	15.9	
7	.0	.5	5.3	3.4	.0	.0	9.2	
8-9	.0	.5	1.2	.2	.0	.0	1.9	
10-11	.0	.2	.2	1.2	.0	.0	1.4	
12	.0	.2	.2	.2	.0	.0	.7	
13-16	.0	.0	.0	.2	.0	.0	.2	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	3.4	40.0	48.2	8.4	.0	.0	100.0	415

PERIOD: (OVER-ALL) 1949-1977

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	1.2	8.6	15.0	6.3	1.9	.7	.3	.3	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	252	3
6-7	.1	1.0	6.4	10.7	7.5	1.8	.4	.3	.3	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	212	5
8-9	.0	.1	2.3	4.9	3.8	2.7	1.1	.3	.4	.1	.0	.1	.0	.0	.0	.0	.0	.0	.0	117	7
10-11	.0	.3	.5	1.6	2.7	1.2	1.0	.3	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	97	7
12-13	.0	.0	.5	.4	.1	1.0	.5	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	21	7
>13	.0	.0	.0	.4	.0	.4	.3	.0	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	11	9
INDEX	2.5	1.4	1.9	1.1	1.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	61	3
TOTAL	28	83	196	186	129	57	29	9	11	2	0	1	0	0	0	0	0	0	0	731	5
PCT	3.8	11.4	26.8	25.4	17.6	7.8	4.0	1.2	1.5	.3	.0	.1	.0	.0	.0	.0	.0	.0	.0	100.0	

PERIOD: (PRIMARY) 1922-1977
(OVER-ALL) 1869-1977

SEPTEMBER

AREA 0032 LIMA
11.35 78-2W

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN CHUR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT 00 TIME	PCPN PAST HOUR	THDR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST BLWG SNG	NO SIG WEA
N	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
E	4.2	.0	2.8	.0	.0	.0	.0	7.0	.0	.0	5.6	.0	5.6	.0	81.7
SE	.7	.4	2.6	.0	.0	.0	.0	3.7	1.7	.3	4.6	.2	2.3	.0	87.2
S	.3	.1	1.5	.0	.0	.0	.0	1.8	.7	.0	4.5	.0	4.5	.0	88.4
SW	.6	.0	4.1	.0	.0	.0	.0	4.1	1.2	.0	10.6	.0	2.4	.0	81.8
W	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
NW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	11.1	.0	.0	.0	.0	11.1	.0	.0	.0	.0	.0	.0	88.9
TOT PCT	.6	.3	2.3	.0	.0	.0	.0	3.0	1.2	.2	4.7	.1	3.3	.0	87.6
TOT OBS:	1195														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE								OTHER WEATHER PHENOMENA						
	RAIN	RAIN CHUR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT 00 TIME	PCPN PAST HOUR	THDR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST BLWG SNDW	NO SIG WEA
00003	.3	.0	1.4	.0	.0	.0	.0	1.7	1.4	.0	4.5	.0	2.7	.0	89.7
06009	.7	.3	2.3	.0	.0	.0	.0	3.3	1.3	.7	2.3	.0	3.9	.0	88.5
12015	1.2	.3	4.3	.0	.0	.0	.0	5.5	1.2	.0	7.4	.0	3.4	.3	82.2
18021	.3	.3	1.0	.0	.0	.0	.0	1.7	.7	.0	3.5	.7	3.4	.0	87.9
TOT PCT	.7	.2	2.3	.0	.0	.0	.0	3.1	1.2	.2	5.0	.2	3.4	.1	86.9
TOT OBS:	1210														

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)						
	0-3	4-10	11-21	22-33	34-47	48+	00				03	06	09	12	15	18	21
N	.1	.2	.0	.0	.0	.0	.0	.4	4.3	.0	.0	.2	1.3	.5	.0	.4	.0
NE	.2	.2	.0	.0	.0	.0	.0	.4	5.9	.0	.0	.2	.9	.8	.0	.3	.0
E	.4	1.1	.3	.0	.0	.0	.0	1.8	7.3	1.1	.0	1.6	1.5	2.9	.0	2.4	.7
SE	1.7	2.3	20.9	1.6	.0	.0	.0	49.6	10.9	46.2	63.5	48.2	50.4	52.7	58.7	51.6	43.4
S	2.6	27.4	13.9	.5	.0	.0	.0	39.4	9.8	44.2	32.3	40.6	31.8	35.7	37.5	39.4	46.3
SW	.9	7.7	.5	.0	.0	.0	.0	4.7	7.0	5.4	4.2	5.1	8.6	3.1	3.8	2.7	5.9
W	.4	.6	.0	.0	.0	.0	.0	1.0	4.3	.8	.0	1.4	1.3	.5	.0	1.0	1.0
NW	.0	.4	.0	.0	.0	.0	.0	.4	6.3	.6	.0	.4	.0	.3	.0	.5	1.4
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	2.3	.0	.0	.0	.0	.0	.0	2.3	.0	1.2	.0	2.4	4.1	3.8	.0	1.8	1.4
TOT OBS	217	1952	901	54	.0	.0	2524		9.8	517	24	538	266	509	26	496	148
TOT PCT	8.6	53.6	35.7	2.1	.0	.0		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)					TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)			
	0-6	7-16	17-27	28-40	41+				00	06	12	18
N	.3	.0	.0	.0	.0	.4	4.3	.0	.0	.5	.3	.3
NE	.2	.0	.0	.0	.0	.4	5.9	.0	.0	.7	.2	.2
E	1.0	.6	.2	.0	.0	1.8	7.3	1.1	1.6	2.8	2.0	2.0
SE	10.1	32.9	6.6	.0	.0	49.6	10.9	47.0	48.9	52.9	49.7	49.7
S	11.5	24.4	3.5	.0	.0	39.4	9.8	43.7	37.7	35.8	41.0	41.0
SW	2.4	2.1	.1	.0	.0	4.7	7.0	5.4	6.3	3.2	3.5	3.5
W	.9	.1	.0	.0	.0	1.0	4.3	.8	1.4	.5	1.0	1.0
NW	.3	.2	.0	.0	.0	.4	6.3	.6	.2	.3	.7	.7
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	2.3	.0	.0	.0	.0	2.3	.0	1.2	3.0	3.4	1.7	1.7
TOT OBS	734	1526	261	3	0	2524		541	804	535	644	644
TOT PCT	29.1	60.5	10.3	.1	.0		100.0	100.0	100.0	100.0	100.0	100.0

PERIOD: (PRIMARY) 1922-1977
(OVER-ALL) 1909-1977

SEPTEMBER

AREA 0032 LIMA
11.35 78.2W

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)				4+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47					
0000Z	1.1	4.3	54.2	38.1	2.4	.0	.0	.0	10.4	100.0	541
0600Z	3.0	7.7	52.5	35.2	1.6	.0	.0	.0	9.5	100.0	804
1200Z	3.4	7.5	53.6	32.9	2.6	.0	.0	.0	9.7	100.0	535
1800Z	1.7	5.1	54.3	36.6	2.2	.0	.0	.0	9.9	100.0	644
TOT	9.9	15.6	139.2	90.1	5.4	.0	.0	.0	9.8		2524
PCT	2.3	6.3	53.6	35.7	2.1	.0	.0	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	.0	.0	.0	.1	8.0	8.0
NE	.1	.1	.0	.1	4.2	4.2
E	.0	.2	.3	.8	7.0	7.0
SE	2.0	1.1	8.5	33.7	7.4	7.4
S	2.5	1.8	7.1	31.9	7.1	7.1
SW	.6	.*	.1	2.1	6.2	6.2
W	.2	.0	.0	.6	7.0	7.0
NW	.0	.0	.3	.0	7.0	7.0
VAR	.0	.0	.0	.0	7.6	7.6
CALM	.0	.0	.4	.0	7.2	7.2
TOT OBS	4.9	3.0	15.2	47.4	90.6	
TOT PCT	5.4	3.3	16.8	74.5	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8)
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

	000	150	300	600	1000	2000	3500	5000	6500	8000+	NH <5/8	TOTAL
	149	299	599	999	1999	3499	4999	6499	7999		ANY HGT	OBS
N	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1
NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.4
E	.0	.1	.1	.2	.2	.0	.0	.0	.0	.0	.0	.7
SE	.1	.7	2.2	12.7	19.4	7.2	1.4	.4	.0	.2	.6	6.0
S	.1	.2	2.3	10.7	14.4	5.9	2.3	.3	.0	.3	.6	6.7
SW	.0	.0	.3	1.0	.3	.3	.1	.0	.0	.0	.0	.8
W	.0	.0	.1	.0	.4	.0	.0	.0	.0	.0	.0	.2
NW	.0	.0	.0	.0	.0	.3	.0	.0	.0	.0	.0	.0
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3
TOT OBS	2	9	45	221	319	128	34	6	0	5	137	906
TOT PCT	.2	1.0	5.0	24.4	35.2	14.1	3.6	.7	.0	.6	15.1	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE
OF CEILING HEIGHT (NH >4/8) AND VSBY (NH)

CEILING (FEET)	VSBY (NM)							
	= OR >10	= OR >5	= OR >2	= OR >1	= OR >1/2	= OR >1/4	= OR >50YD	= OR >0
= NH >4000	.3	.3	.5	.5	.5	.5	.5	.5
= NH >3000	1.0	1.0	1.2	1.2	1.2	1.2	1.2	1.2
= NH >2000	3.9	4.5	4.7	4.7	4.7	4.7	4.7	4.7
= NH >1000	14.6	18.0	18.6	18.6	18.6	18.6	18.6	18.6
= NH >800	39.9	51.5	53.7	53.7	53.7	53.7	53.7	53.7
= NH >600	55.6	74.7	78.5	78.6	78.6	78.6	78.6	78.6
= NH >500	58.8	79.5	83.3	83.6	83.6	83.6	83.6	83.6
= NH >150	59.2	80.4	84.3	84.5	84.5	84.5	84.5	84.5
= NH >0	59.2	80.4	84.5	84.8	84.9	84.9	84.9	84.9
TOTAL	540	793	771	773	774	774	774	774

TOTAL NUMBER OF OBS: 912

PCT FREQ NH <5/8: 15.1

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

	0	1	2	3	4	5	6	7	8 OBSCD	TOTAL OBS
	4.6	1.6	3.0	2.2	3.8	3.2	6.0	10.5	65.1	1008

PERIOD: (PRIMARY) 1922-1977
(OVER-ALL) 1899-1977

SEPTEMBER

AREA 0032 LIMA
11.35 78.2W

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NN PCP	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1	
	TOT %	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1	
1/2<1	PCP	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.1	
	NN PCP	.0	.0	*	.1	.0	.0	.0	.0	.0	.0	.2	
	TOT %	.0	.0	*	.2	.0	.0	.0	.0	.0	.0	.3	
1<2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NN PCP	.0	.0	.0	.2	.2	.0	.0	.0	.0	.0	.4	
	TOT %	.0	.0	.0	.2	.2	.0	.0	.0	.0	.0	.4	
2<5	PCP	.0	.0	.0	.1	.1	*	.0	.0	.0	.0	.3	
	NN PCP	.0	.0	.3	2.0	2.2	.3	.1	.0	.0	.0	4.9	
	TOT %	.0	.0	.3	2.1	2.4	.3	.1	.0	.0	.0	5.1	
5<10	PCP	.0	.0	.1	1.1	.6	.1	.0	.0	.0	.1	1.9	
	NN PCP	.1	.1	.3	12.9	10.6	.7	.2	.0	.0	.4	25.3	
	TOT %	.1	.1	.4	14.0	11.2	.8	.2	.0	.0	.5	27.3	
10+	PCP	.0	.0	.0	.6	.1	.0	.0	.0	.0	.1	.8	
	NN PCP	.0	.2	.8	32.9	28.6	2.0	.4	.3	.0	.9	66.1	
	TOT %	.0	.2	.8	33.5	28.7	2.0	.4	.3	.0	1.0	66.8	
TOT OBS													1188
TOT PCT		.1	.3	1.5	50.1	42.6	3.2	.6	.3	.0	1.5	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.1	*	.0	.0	.0	.0	.1	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.1	*	.0	.0	.0	.0	.1	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	*	.1	.0	.0	.0	.0	.0	.0	.1	
	11-21	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.1	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	*	.2	.0	.0	.0	.0	.0	.0	.2	
1<2	0-3	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.1	
	4-10	.0	.0	.0	.2	.2	.0	.0	.0	.0	.0	.4	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.2	.2	.0	.0	.0	.0	.0	.4	
2<5	0-3	.0	.0	.1	.1	.1	*	.0	.0	.0	.1	.4	
	4-10	.0	.0	.2	1.1	1.4	.1	.1	.0	.0	.0	2.9	
	11-21	.0	.0	.0	.7	.7	.2	.0	.0	.0	.0	1.6	
	22+	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.1	
	TOT %	.0	.0	.2	2.1	2.2	.3	.1	.0	.0	.1	5.0	
5<10	0-3	.0	.0	.1	.4	.4	.2	.1	.1	.0	.6	1.8	
	4-10	.1	.0	.3	6.1	5.2	.6	.0	.0	.0	.0	12.4	
	11-21	.0	.1	.0	5.5	4.8	*	.0	.0	.0	.0	10.4	
	22+	.0	.0	.0	1.1	.3	.0	.0	.0	.0	.0	1.4	
	TOT %	.1	.1	.4	13.2	10.8	.8	.1	.1	.0	.6	26.1	
10+	0-3	.0	.0	.1	.3	1.1	.5	*	.0	.0	1.8	3.8	
	4-10	*	.1	.5	13.8	15.5	1.6	.6	.4	.0	.0	32.6	
	11-21	.0	*	.2	17.4	12.4	.3	*	.0	.0	.0	30.4	
	22+	.0	.0	.0	.8	.6	.1	.0	.0	.0	.0	1.4	
	TOT %	*	.2	.8	32.3	29.5	2.6	.7	.4	.0	1.8	68.2	
TOT OBS													1408
TOT PCT		.1	.2	1.4	47.9	42.8	3.7	.9	.5	.0	2.4	100.0	

SEPTEMBER

PERIOD: (PRIMARY) 1922-1977
(OVER-ALL) 1869-1977

TABLE 10

AREA 0032 LIMA
11.35 78.2W

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NM >4/8) AND
OCCURRENCE OF NM <5/8 BY HOUR

HOUR (GMT)	000	150	300	600	1000	2000	3500	5000	6500	8000+	TOTAL	NM <5/8 ANY HGT	TOTAL OBS
00003	.0	1.3	3.4	24.6	34.1	12.1	4.3	.4	.0	.0	80.2	19.8	232
06009	.0	.9	4.7	21.4	34.0	18.1	3.7	.5	.0	.5	83.7	16.3	215
12015	.8	1.2	7.8	28.0	33.9	14.4	3.5	.8	.0	.4	90.7	9.3	257
18021	.4	.4	3.1	23.1	36.0	10.7	3.1	.9	.0	1.3	79.1	20.9	225
TOT	.3	.9	4.5	22.7	32.0	12.8	3.4	.6	.0	.5	77.7	15.2	929
PCT	.3	1.0	4.8	24.4	34.4	13.8	3.7	.6	.0	.5	83.6	16.4	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.3	.0	.0	6.6	23.0	70.1	335
06009	.0	.3	.3	3.5	29.9	66.1	395
12015	.0	.6	1.1	5.9	28.0	64.4	354
18021	.3	.3	.3	5.3	23.4	70.4	338
TOT	2	4	6	75	373	982	1422
PCT	.1	.3	.4	5.3	26.2	67.7	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR
CEILING HGT (FEET, NM >4/8) BY HOUR

HOUR (GMT)	<150 <500	<600 <1	<1000 <5	1000+ AND 5+	NM <5/8 AND 5+	TOTAL OBS
00003	.0	4.8	34.3	48.7	17.0	230
06009	.0	5.7	28.4	56.4	15.2	211
12015	.8	9.9	41.1	50.6	8.3	253
18021	.5	4.1	32.6	50.9	16.5	218
TOT	3	57	314	470	178	912
PCT	.3	6.3	34.4	51.5	14.0	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
75/79	.0	.0	.0	.0	.1	.0	.0	.0	1	.1
70/74	.0	.0	.0	.0	.3	.9	.4	.1	20	1.8
65/69	.0	.0	.0	.3	1.0	4.2	8.2	2.7	178	16.4
60/64	.0	.0	.0	.0	.7	12.8	35.7	18.6	735	67.9
55/59	.0	.0	.0	.0	.0	.3	6.2	7.2	148	13.7
50/54	.0	.0	.0	.0	.0	.1	.0	.0	1	.1
TOTAL	0	0	0	3	23	199	549	309	1083	100.0
PCT	.0	.0	.0	.3	2.1	18.4	50.7	28.5		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
75/79	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0
70/74	.0	.0	.0	1.2	.6	.9	.0	.0	.0	.0
65/69	.1	.0	.4	8.3	7.2	.1	.0	.1	.0	.3
60/64	.0	.0	1.1	36.0	27.7	2.0	.4	.0	.0	.7
55/59	.0	.0	.0	6.2	6.5	.6	.0	.0	.0	.3
50/54	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0
TOT	.1	.0	1.5	51.8	42.0	2.9	.4	.1	.0	1.3

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	80	68	67	67	59	58	57	62.2	544
06009	70	67	65	61	58	56	50	61.0	815
12015	72	68	66	61	58	57	50	61.7	541
18021	77	74	71	64	60	58	52	64.7	600
TOT	80	71	68	67	58	57	50	62.3	2500

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	.0	.4	19.0	54.6	26.0	85	273
06009	.0	.0	.4	12.2	49.5	38.0	87	279
12015	.0	.0	1.0	14.4	47.4	37.1	86	291
18021	.0	1.2	7.1	28.0	51.6	12.2	81	254
TOT	0	3	23	199	556	316	85	1097

SEPTEMBER

PERIOD: (PRIMARY) 1922-1977
(OVER-ALL) 1869-1977

TABLE 17

AREA 0032 LIMA
11.35 78.24

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	53 56	57 60	61 64	65 68	69 72	73 76	77 80	TOT	W FOG	WD FOG
14/16	.0	.0	.0	.0	.1	.1		2	.0	.2
11/13	.0	.0	.0	.0	.4	.2	.0	6	.0	.6
9/10	.0	.0	.0	.0	.1	.1	.0	2	.0	.2
7/8	.0	.0	.2	.9	.4	.0	.0	16	.1	1.4
6	.0	.1	.2	.5	.3	.1	.0	12	.1	1.0
5	.0	.2	1.0	.8	.4	.0	.0	26	.4	2.1
4	.0	.4	1.6	1.0	.7	.0	.0	39	.1	3.6
3	.0	.4	3.1	2.1	.0	.0	.0	59	.4	5.2
2	.0	2.1	7.4	1.9	.5	.0	.0	126	.8	11.0
1	.0	4.1	8.0	2.5	.0	.0	.0	156	1.0	13.6
0	.0	4.8	12.2	2.1	.1	.0	.0	204	1.1	18.0
-1	.0	4.2	9.2	2.2	.1	.0	.0	167	.5	15.2
-2	.1	3.1	4.7	1.3	.0	.0	.0	98	.3	8.9
-3	.1	2.3	3.8	.5	.0	.0	.0	70	.0	6.6
-4	.1	1.4	3.0	.4	.0	.0	.0	52	.2	4.7
-5	.0	.6	.9	.1	.0	.0	.0	17	.0	1.6
-6	.0	.1	.3	.0	.0	.0	.0	4	.0	.4
-7/-8	.0	.2	.6	.0	.0	.0	.0	8	.0	.8
-9/-10	.0	.1	.0	.0	.0	.0	.0	1	.0	.1
TOTAL	3		598		30		1	1065	5.0	95.0
PCT	.3	23.9	56.2	16.2	2.8	.5	.1	100.0	5.0	95.0

PERIOD: (OVER-ALL) 1963-1977

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

WGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.2
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.2	.3	.0	.0	.0	.5
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.0	.0	.0	.0	.0	.0	.0	.4	.3	.0	.0	.0	.7

WGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0	.2	1.6	.1	.0	.0	.0	1.9
1-2	.0	.5	.0	.0	.0	.0	.5	.2	9.9	3.5	.0	.0	.0	13.6
3-4	.0	.0	.4	.0	.0	.0	.4	.0	4.9	13.9	1.2	.0	.0	19.5
5-6	.0	.0	.3	.0	.0	.0	.3	.0	.7	13.0	1.5	.0	.0	15.1
7	.0	.0	.0	.0	.0	.0	.0	.0	.3	3.5	.9	.0	.0	4.8
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.4	.1	.0	.0	1.5
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.2	.0	.0	.4
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.4	.0	.0	.4
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.5	.7	.0	.0	.0	1.2	.4	17.6	35.0	4.2	.0	.0	57.2

PERIOD: (OVER-ALL) 1963-1977

SEPTEMBER

AREA 0037 LIMA

TABLE 18 (CONT)

11.35 78.2W

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT								SW							PCT
	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	
<1	.0	.0	.0	.0	.0	.0	.0	.2	.2	.0	.0	.0	.0	.0	.4
1-2	.2	7.5	1.6	.0	.0	.0	9.3	.2	.7	.0	.0	.0	.0	.0	.9
3-4	.2	5.5	5.7	.2	.0	.0	15.1	.0	.2	.5	.0	.0	.0	.0	.6
5-6	.0	1.1	5.7	.6	.0	.0	7.4	.0	.5	.0	.0	.0	.0	.0	.5
7	.0	.4	2.0	.8	.0	.0	3.2	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	1.0	.2	.0	.0	1.2	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.4	16.1	14.6	1.7	.0	.0	36.8	.4	1.5	.5	.0	.0	.0	.0	2.3

HGT								NW							PCT	TOTAL PCT
	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT		
<1	.2	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	99.0
1-2	.2	.2	.0	.0	.0	.0	.4	.0	.0	.0	.0	.0	.0	.0	.0	
3-4	.0	.2	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.4	.4	.0	.0	.0	.0	.8	.0	.0	.0	.0	.0	.0	.0	.0	

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	2.0	2.4	.2	.0	.0	.0	4.6	496
1-2	1.4	18.8	5.0	.0	.0	.0	25.2	
3-4	.2	11.9	22.4	1.4	.0	.0	35.9	
5-6	.0	2.2	18.8	2.0	.0	.0	23.0	
7	.0	.0	5.4	1.6	.0	.0	7.9	
8-9	.0	.0	2.4	.2	.0	.0	2.6	
10-11	.0	.0	.2	.2	.0	.0	.4	
12	.0	.0	.0	.4	.0	.0	.4	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	3.6	36.1	54.4	5.8	.0	.0	100.0	

PERIOD: (OVER-ALL) 1949-1977

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	2.3	5.8	15.4	10.0	2.3	.9	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	299	4
6-7	.0	.9	9.0	9.9	6.0	1.5	1.5	.6	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	239	5
8-9	.0	.6	7.8	2.6	6.3	2.6	1.0	.7	.1	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	138	7
10-11	.0	.2	1.0	1.4	1.7	1.5	1.0	.4	.1	.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	66	8
12-13	.0	.0	.7	.9	.7	.2	.5	.1	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	29	7
15-17	.0	.0	.0	.2	.1	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3	4
18-20	1.1	.4	.9	.9	.5	.4	.2	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	36	4
TOTAL	28	64	242	209	144	98	35	15	7	8	.0	.0	.0	.0	.0	.0	.0	.0	.0	810	5
PCT	3.5	7.9	29.9	25.8	17.8	7.2	4.3	1.9	.9	1.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	

PERIOD: (PRIMARY) 1919-1977
(OVER-ALL) 1864-1977

OCTOBER

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11.35 78.1W

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

PRECIPITATION TYPE										OTHER WEATHER PHENOMENA					
WIND DIR	RAIN	RAIN SHR	ORZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SNOKE HAZE	SPRAY BLWG JUST	NO SIG WEA
N	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
E	5.7	.0	2.9	.0	.0	.0	.0	8.6	.0	.0	.0	5.7	.0	4.3	81.4
SE	.5	.0	1.8	.0	.0	.0	.0	2.2	1.7	.3	2.8	.1	1.4	.0	92.0
S	.0	.0	1.7	.0	.0	.0	.0	1.7	.0	.3	5.3	.4	3.8	.0	87.6
SW	.0	.0	.0	.0	.0	.0	.0	.0	.3	.6	.9	.0	3.4	.0	94.8
W	.0	.0	.0	.0	.0	.0	.0	.0	15.0	10.0	.0	.0	.0	.0	75.0
NW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	6.7	.0	.0	.0	.0	6.7	.0	.0	6.7	.0	20.0	.0	66.7
TOT PCT	.3	.0	1.7	.0	.0	.0	.0	1.9	1.0	.3	4.1	.3	3.1	.0	89.3
TOT OBS:	1180														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	ORZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SNOKE HAZE	SPRAY BL W/G BL W/G SNDW	NO SIG WEA
00003	.7	.0	.7	.0	.0	.0	.0	1.4	1.8	.0	2.1	.7	1.8	.0	92.1
06009	.3	.0	2.3	.0	.0	.0	.0	2.6	.0	1.3	2.9	.0	2.3	.0	90.9
12015	.0	.0	3.0	.0	.0	.0	.0	3.0	1.4	.0	6.7	.0	3.6	.0	84.8
18021	.0	.0	.7	.0	.0	.0	.0	.7	.3	.0	4.8	.3	4.8	.0	89.1
TOT PCT	.2	.0	1.7	.0	.0	.0	.0	2.0	1.0	.3	4.2	.2	3.1	.0	89.1
TOT OBS:	1212														

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	48+					00	03	06	09	12	15	18	21
N	.1	*	*	.0	.0	.0		.2	4.3	.0	.0	.2	.4	.2	.0	.4	.3	
NE	*	.1	.0	.0	.0	.0		.2	4.5	.0	.0	.2	.7	.0	.0	.2	.0	
E	.5	1.9	.4	*	.0	.0		2.1	7.9	1.5	5.2	1.5	3.6	1.5	5.3	3.0	.7	
SE	3.0	27.1	14.6	1.1	.0	.0		40.7	10.1	37.9	31.0	39.4	41.7	45.1	22.0	43.7	36.3	
S	3.6	27.7	13.6	.4	*	.0		49.4	9.1	49.4	45.7	40.6	37.8	44.8	50.8	44.2	45.1	
SW	2.8	1.4	.9	.0	.0	.0		7.1	5.2	8.3	18.1	7.9	7.3	4.4	22.0	4.6	10.1	
W	.2	.4	.1	.0	.0	.0		.8	6.6	.9	.0	.9	1.1	.7	.0	.6	2.8	
NW	.2	.4	.0	.0	.0	.0		.6	5.2	.2	.0	1.0	1.5	.4	.0	.2	.4	
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	3.0							3.0	.0	1.8	.0	2.3	5.9	3.4	.0	3.0	4.1	
TOT OBS	332	1368	727	37	1	0	2465		8.9	503	29	521	271	477	33	461	170	
TOT PCT	13.5	54.5	29.5	1.5	*	.0		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	

TABLE 3A

W'D DIR	WIND SPEED (KNOTS)				41+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)			
	0-6	7-16	17-27	28-40					00 03	06 09	12 15	18 21
N	.2	*	.0	.0	.0	.2	4.3	.0	.3	.2	.4	
NE	.2	.0	.0	.0	.0	.2	4.5	.0	.4	.0	.2	
E	.9	1.0	.2	.0	.0	2.1	7.9	1.7	2.2	1.8	2.4	
SE	11.2	24.7	4.8	*	.0	40.7	10.1	37.5	40.2	43.6	41.7	
S	15.6	26.7	3.0	*	*	49.4	9.1	49.2	43.6	45.2	44.5	
SW	5.1	1.9	.1	.0	.0	7.1	5.2	8.8	7.7	5.5	6.1	
W	.4	.4	.0	.0	.0	.8	6.6	.9	.9	.2	1.2	
NW	.4	.2	.0	.0	.0	.6	5.2	.2	1.1	.4	.3	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	3.0					3.0	.0	1.7	3.5	3.1	3.3	
TOT OBS	911	1355	196	2	1	2465	8.9	532	792	510	631	
TOT PCT	37.0	55.0	8.0	.1	*		100.0	100.0	100.0	100.0	100.0	

PERIOD: (PRIMARY) 1919-1977
(OVER-ALL) 1864-1977

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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)				4+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47					
0000Z	1.7	9.0	59.0	28.8	1.5	.0	.0	9.0	100.0	532	
0600Z	3.5	11.1	57.1	27.0	1.3	.0	.0	8.5	100.0	792	
1200Z	3.1	9.8	52.7	32.7	1.6	.0	.0	9.1	100.0	510	
1800Z	3.3	11.4	52.8	30.6	1.7	.2	.0	8.9	100.0	631	
TOT	74	258	1368	727	37	1	0	8.9		2465	
PCT	3.0	10.5	55.5	29.5	1.5	*	.0	100.0			

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8-6 Obscd	TOTAL OBS	MEAN CLOUD COVER
N	.0	.0	.0	.0		.0
NE	.0	.1	.0	.0		3.0
E	.0	.0	.2	1.1		7.4
SE	2.5	1.8	8.7	25.1		6.9
S	7.1	3.9	11.1	23.6		6.4
SW	.6	.4	.7	2.1		6.1
W	.0	.1	.0	.0		4.0
NW	.2	.0	.0	.0		.0
VAR	.0	.0	.0	.0		.0
CALM	.0	.0	.0	.0		.0
TOT OBS	87	53	173	422	835	6.0
TOT PCT	10.4	6.3	20.7	62.5	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NM >4/8)
AND OCCURRENCE OF NM <5/8 BY WIND DIRECTION

	000 149	150 299	300 599	400 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NM <5/8 ANY HGT	TOTAL OBS
N	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1
E	.0	.0	.1	.3	.7	.1	.1	.0	.0	.0	.0	.1
SE	.2	.4	1.0	7.8	15.2	4.6	1.9	.2	.1	.2	6.6	
S	.4	.4	1.9	10.7	17.3	5.6	1.5	.7	.4	.9	15.9	
SW	.0	.0	.1	.6	1.0	.5	.1	.0	*	.1	1.3	
W	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	
NW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT OBS	5	7	26	102	287	92	31	7	4	11	203	835
TOT PCT	.6	.8	3.1	19.4	34.4	11.0	3.7	.8	.5	1.3	24.3	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE
OF CEILING HEIGHT (NM >4/8) AND VSBY (NM)

CEILING (Feet)	VSBY (NM)							
	>10	>5	>2	>1	>1/2	>1/4	>3/8	>0
>9000	1.2	1.4	1.8	1.8	1.8	1.8	1.8	1.8
>5000	1.9	2.1	2.5	2.5	2.5	2.5	2.6	2.6
>3000	3.1	5.9	6.3	6.3	6.3	6.3	6.4	6.4
>2000	13.3	16.5	17.1	17.1	17.1	17.1	17.2	17.2
>1000	39.0	49.7	51.2	51.2	51.4	51.4	51.5	51.5
>800	51.8	67.8	70.4	70.5	70.6	70.6	70.7	70.8
>600	53.2	70.7	73.4	73.6	73.7	73.7	73.8	73.9
>400	53.8	71.4	74.1	74.4	74.5	74.5	74.6	74.7
>200	54.1	72.0	74.7	75.0	75.1	75.1	75.2	75.3
>0	54.8	61.0	63.3	63.5	63.6	63.6	63.7	63.8

TOTAL NUMBER OF OBS: 847

PCT FREQ NM <5/8: 24.7

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8 OBSCD	TOTAL OBS
6.2	3.6	4.8	4.1	4.8	4.7	8.0	9.6	54.0	945

PERIOD: (PRIMARY) 1919-1977
(OVER-ALL) 1964-1977

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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSRY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.2
	TOT %	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.2
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1
	NO PCP	.0	.0	.0	.2	.9	.0	.0	.0	.0	.0	.0	1.1
	TOT %	.0	.0	.0	.2	1.0	.0	.0	.0	.0	.0	.0	1.2
1<2	PCP	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.1
	NO PCP	.0	.0	.0	.1	.1	.0	.0	.0	.0	.0	.0	.2
	TOT %	.0	.0	.0	.2	.1	.0	.0	.0	.0	.0	.0	.3
2<5	PCP	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.2
	NO PCP	.0	.0	.2	.5	1.9	.0	.0	.0	.0	.2	.2	2.8
	TOT %	.0	.0	.2	.5	2.0	.0	.0	.0	.0	.2	.2	3.0
5<10	PCP	.0	.0	.1	.5	.7	.0	.0	.0	.0	.1	1.5	
	NO PCP	.1	.0	.4	9.3	12.7	1.6	.3	.0	.0	.5	24.9	
	TOT %	.1	.0	.5	9.9	13.3	1.6	.3	.0	.0	.6	26.4	
10+	PCP	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.2	
	NO PCP	.0	.1	.8	27.1	37.3	2.6	.2	.0	.0	.5	68.8	
	TOT %	.0	.1	.8	27.2	37.4	2.6	.2	.0	.0	.5	69.0	
TOT OBS													1148
TOT PCT		.1	.1	1.5	38.2	54.0	4.3	.4	.2	.0	1.3	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED
WITH VARYING VALUES OF VISIBILITY

VSRY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1	.3	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1	.3	
1/2<1	0-3	.0	.0	.0	.0	.3	.0	.0	.0	.0	.0	.3	
	4-10	.0	.0	.0	.2	.6	.0	.0	.0	.0	.0	.7	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.2	.6	.0	.0	.0	.0	.0	1.0	
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.1	.1	.0	.0	.0	.0	.0	.2	
	11-21	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.1	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.2	.1	.0	.0	.0	.0	.0	.3	
2<5	0-3	.0	.0	.1	.0	.3	.0	.0	.0	.0	.1	.5	
	4-10	.0	.0	.1	.6	1.2	.0	.0	.0	.0	.0	1.9	
	11-21	.0	.0	.0	.2	.3	.0	.0	.0	.0	.0	.5	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.1	.8	1.8	.0	.0	.0	.0	.1	2.9	
5<10	0-3	.1	.0	.3	.9	1.2	.6	.1	.0	.0	.6	3.7	
	4-10	.0	.0	.1	5.7	7.0	.6	.1	.0	.0	.0	13.4	
	11-21	.0	.0	.1	3.3	4.4	.2	.1	.0	.0	.0	8.0	
	22+	.0	.0	.0	.2	.1	.0	.0	.0	.0	.0	.3	
	TOT %	.1	.0	.5	10.0	12.7	1.3	.3	.0	.0	.6	25.5	
10+	0-3	.0	.0	.0	1.0	1.7	.3	.0	.0	.0	1.7	4.7	
	4-10	.0	.1	.4	13.5	21.8	2.2	.1	.0	.0	.0	38.2	
	11-21	.0	.0	.3	11.3	13.0	.7	.0	.0	.0	.0	25.4	
	22+	.0	.0	.0	1.2	.5	.0	.0	.0	.0	.0	1.7	
	TOT %	.0	.1	.7	27.0	37.0	3.2	.1	.1	.0	1.7	70.0	
TOT OBS													1392
TOT PCT		.1	.1	1.3	38.3	52.6	4.5	.4	.1	.0	2.6	100.0	

OCTOBER

PERIOD: (PRIMARY) 1914-1977
(OVER-ALL) 1864-1977AREA 0032 LIMA
11.35 78.1W

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NH >4/8) AND
OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 14.0	150 2.9	300 5.9	450 9.9	600 10.0	750 10.0	900 7.0	1050 3.0	1200 5.0	1350 6.0	1500 8.0	1650 7.0	1800 8.0	1950 7.0	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00003	.5	1.0	3.8	14.4	28.7	10.0	3.3	1.4	.0	1.4	64.6				35.4		209
06009	.5	1.0	1.9	18.3	34.1	11.1	2.9	1.4	1.0	1.9	74.0				26.0		208
12015	1.2	.8	4.4	23.4	38.3	11.3	4.0	.4	.8	.4	85.1				14.9		248
18021	.0	.5	1.5	19.2	33.3	10.1	4.5	.5	.0	1.5	71.2				28.8		198
TOT	5	7	26	104	292	92	32	8	4	11	641				222		863
PCT	.6	.8	3.0	19.0	33.8	10.7	3.7	.9	.5	1.3	74.3				25.7		100.0

TABLE 11

PERCENT FREQUENCY VSRY (FM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.0	.0	.0	1.2	29.5	70.3	330
06009	.7	.7	.7	2.0	24.3	70.0	403
12015	.6	2.0	.3	5.1	23.9	68.2	352
18021	.0	1.0	.4	3.6	24.3	69.7	333
TOT	5	16	4	42	165	986	1418
PCT	.4	1.1	.3	3.0	25.7	69.5	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSRY (NM) AND/OR
CEILING HGT (FEET, NH >4/8), BY HOUR

HOUR (GMT)	<150 <500	<600 <1	<1000 <5	1000+ AND 5+	NH <5/8 AND 5+	TOTAL OBS
00003	.5	5.5	21.5	46.5	32.3	200
06009	.5	3.9	23.3	51.9	24.8	206
12015	1.6	6.9	33.3	52.0	14.6	246
18021	.0	2.6	25.1	47.7	27.2	195
TOT	6	41	222	421	204	847
PCT	.7	4.8	26.2	49.7	24.1	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
75/79	.0	.0	.0	.0	.4	.0	.1	.0	5	.5
70/74	.0	.0	.0	.3	1.6	1.1	.7	.4	41	4.0
65/69	.0	.0	.1	.0	1.4	8.4	11.5	6.4	284	27.8
60/64	.0	.0	.0	.0	.3	9.8	33.8	18.4	636	62.2
55/59	.0	.0	.0	.0	.0	.2	1.6	3.7	56	5.5
TOTAL	0	0	1	3	37	199	487	295	1022	100.0
PCT	.0	.0	.1	.3	3.6	19.5	47.7	24.9		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.0	.0	.0	.0	.4	.0	.0	.0	.0	.0
.0	.0	.3	1.6	2.0	.1	.0	.0	.0	.0
.0	.1	.3	12.3	14.0	.9	.0	.0	.0	.1
.2	.1	1.1	24.8	31.8	2.7	.6	.2	.0	.9
.0	.0	.1	1.8	3.1	.5	.1	.0	.0	.0
.2	.2	1.8	40.5	51.2	4.2	.8	.2	.0	1.0

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	73	70	58	67	60	58	57	63.4	320
06009	79	69	66	62	59	57	56	62.1	800
12015	74	70	67	67	59	58	57	62.8	502
18021	82	77	73	64	61	60	59	66.6	366
TOT	82	74	70	67	59	58	57	63.5	2388

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	.0	1.7	16.6	53.1	28.6	86	241		
06009	.0	.4	.7	15.9	47.2	35.8	87	271		
12015	.0	.0	.3	14.8	51.4	33.4	87	290		
18021	.0	1.3	12.9	32.5	37.9	15.4	80	240		
TOT	0	4	38	204	496	300	85	1042		

PERIOD: (PRIMARY) 1919-1977
(OVER-ALL) 1964-1977

DICTIONARY

TABLE 17

AREA 0032 LIMA
11.35 78-1W

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TEMP DIFF	53 56	57 60	61 64	65 68	69 72	73 76	77 80	TOT	N FOG	NO FOG
14/16	.0	.0	.0	.0	.1	.3	.1	5	.0	.5
11/13	.0	.0	.1	.2	.4	.5	.0	12	.0	1.1
9/10	.0	.0	.2	.2	.0	.5	.1	10	.0	.9
7/8	.0	.4	.4	.7	1.1	.2	.0	30	.1	2.7
6	.0	.2	.3	.5	.6	.0	.0	16	.0	1.5
5	.0	.1	1.2	1.4	.6	.3	.0	39	.1	3.5
4	.0	.1	2.2	2.1	.6	.0	.0	55	.5	4.6
3	.0	.2	3.5	3.2	.8	.1	.0	85	.6	7.2
2	.0	1.0	5.7	4.7	.4	.1	.0	122	.6	10.6
1	.0	2.0	8.6	4.2	.4	.0	.0	166	.6	14.6
0	.0	3.8	10.6	3.7	.3	.0	.0	204	.9	17.8
-1	.0	2.2	8.3	3.1	.0	.0	.0	151	.5	13.4
-2	.0	1.4	5.0	2.5	.0	.0	.0	103	.3	9.2
-3	.0	.6	3.2	.8	.1	.0	.1	51	.2	4.5
-4	.1	.4	1.3	.3	.0	.0	.0	22	.1	1.9
-5	.0	.1	.6	.2	.0	.0	.0	9	.0	.8
-6	.0	.0	.4	.1	.0	.0	.0	5	.1	.4
-7/-8	.0	.3	.1	.0	.0	.0	.0	4	.0	.4
-11/-13	.0	.0	.0	.1	.0	.0	.0	1	.0	.1
TOTAL	1	138	570	298	60	20	3	1090	4.6	95.4
PCT	.1	12.7	52.3	27.3	5.5	1.8	.3	100.0	4.6	95.4

PERIOD: (OVER-ALL) 1963-1977

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

MGY	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
41	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.0	.0	.0	.0	.0	.0	.0	.3	.0	.0	.0	.0	.3

MGY	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
41	.3	.0	.0	.0	.0	.0	.3	.3	.8	.0	.0	.0	.0	1.1
1-2	.0	.3	.0	.0	.0	.0	.3	.6	9.1	4.6	.0	.0	.0	14.2
3-4	.0	.4	.5	.0	.0	.0	.9	.0	6.1	8.6	.3	.0	.0	14.9
5-6	.0	.0	.4	.0	.0	.0	.4	.0	.4	5.1	.0	.0	.0	5.6
7	.0	.0	.0	.0	.0	.0	.0	.1	2.0	.3	.0	.0	.0	2.3
8-9	.0	.0	.0	.0	.0	.0	.0	.3	.3	.6	.0	.0	.0	1.1
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.3	.7	.9	.0	.0	.0	1.8	.9	16.7	20.6	1.1	.0	.0	39.7

PERIOD: (OVER-ALL) 1963-1977

OCTOBER

AREA 0032 LIMA
11.35 78.14

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.9	3.1	.0	.0	.0	.0	4.1	.8	.4	.0	.0	.0	.0	1.1
1-2	1.7	14.0	5.8	.0	.0	.0	21.5	.0	.8	.7	.0	.0	.0	1.4
3-4	.3	7.6	10.0	.0	.0	.0	17.9	.0	.4	.8	.0	.0	.0	1.1
5-6	.5	.8	5.3	.0	.0	.0	6.6	.0	.0	.3	.0	.0	.0	.3
7	.0	.2	2.0	.3	.0	.0	2.4	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.4	.0	.2	.0	.0	.6	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	3.4	26.3	23.1	.4	.0	.0	53.1	.8	1.5	1.7	.0	.0	.0	3.9

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.2	.0	.0	.0	.0	.2	.0	.3	.0	.0	.0	.0	.3	.3
3-4	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.2	.2	.0	.0	.0	.4	.0	.3	.0	.0	.0	.0	.3	99.0

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	3.2	4.2	.0	.0	.0	.0	7.5	
1-2	2.2	24.9	11.0	.0	.0	.0	38.2	
3-4	.2	14.5	20.0	.2	.0	.0	34.9	
5-6	.5	1.5	11.0	.0	.0	.0	13.0	
7	.0	.2	4.0	.5	.0	.0	4.7	
8-9	.0	.7	.2	.7	.0	.0	1.7	
10-11	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	6.2	46.1	46.1	1.5	.0	.0	100.0	401

PERIOD: (OVER-ALL) 1949-1977

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	1.6	10.1	18.4	7.0	2.3	1.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	302	3
6-7	.1	1.3	9.0	9.8	4.0	2.0	.5	.5	.3	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	207	5
8-9	.0	.3	2.8	4.8	3.8	1.1	1.9	.3	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	112	6
10-11	.0	.0	.8	2.3	1.2	1.1	.3	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	44	6
12-13	.0	.0	1.1	.4	.5	.3	.3	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	22	6
>13	.0	.0	.0	.3	.4	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	6	7
INDET	.5	1.1	1.7	1.1	1.9	.3	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	50	4
TOTAL	17	95	252	191	105	45	25	7	5	0	1	0	0	0	0	0	0	0	0	743	5
PCT	2.3	12.8	33.9	25.7	14.1	6.1	3.4	.9	.7	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	100.0	

PERIOD: (PRIMARY) 1914-1977
(OVER-ALL) 1864-1977

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TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHW	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
N	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	22.2	.0	.0	.0	77.8
NE	.0	.0	.0	.0	.0	.0	.0	.0	28.4	.0	42.9	.0	.0	.0	28.6
E	.0	3.1	2.3	.0	.0	.0	.0	5.4	2.3	.0	6.2	.0	.0	.0	86.2
SE	.2	.0	.7	.0	.0	.0	.0	.8	.8	.3	4.2	.0	3.2	.0	91.1
S	.0	.0	1.0	.0	.0	.0	.1	1.2	.8	.0	15.7	.1	4.3	.0	78.4
SW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	13.1	.0	9.8	.0	77.0
W	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
NW	19.0	.0	.0	.0	.0	.0	.0	19.0	.0	.0	19.0	.0	19.0	.0	42.9
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	2.6	.0	.0	.0	.0	2.6	.0	.0	7.9	2.6	2.6	.0	84.2
TOT PCT	.1	.1	.9	.0	.0	.0	.1	1.2	.8	.1	10.4	.1	3.9	.0	83.7
TOT OBS:	1445														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHW	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
0000	.3	.0	.0	.0	.0	.0	.0	.3	.0	.3	7.4	.5	3.0	.0	88.7
0600	.0	.2	1.5	.0	.0	.0	.0	1.7	.7	.2	13.9	.0	2.5	.0	80.9
1200	.3	.0	1.9	.0	.0	.0	.3	2.5	.6	.0	11.4	.0	4.4	.0	81.1
1800	.0	.0	.3	.0	.0	.0	.0	.3	.5	.0	12.6	.0	5.6	.0	81.0
TOT PCT	.1	.1	.9	.0	.0	.0	.1	1.2	.8	.1	11.4	.1	3.9	.0	82.9
TOT OBS:	1502														

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	0-3	WIND SPEED (KNOTS)						48+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)						
		4-10	11-21	22-33	34-47	00	03					06	09	12	15	18	21	
N	.2	.2	.0	.0	.0	.0	.0	.5	4.1	.1	.0	1.0	1.3	.4	.0	.0	.0	
NE	.2	.0	.0	.0	.0	.0	.0	.3	4.0	.0	.0	.2	.3	.8	.0	.2	.0	
E	.3	1.3	.5	.0	.0	.0	.0	2.1	8.1	1.5	4.0	2.0	1.8	3.3	1.8	2.3	1.2	
SE	2.7	24.4	14.5	.4	.0	.0	.0	43.9	9.5	39.0	62.5	39.7	45.8	50.5	66.4	46.0	35.6	
S	6.1	25.2	10.6	.5	.0	.0	.0	42.3	8.5	47.7	32.4	46.1	35.1	34.5	30.0	40.9	54.9	
SW	1.2	3.7	.5	.0	.0	.0	.0	5.4	6.3	6.2	.6	6.2	7.3	4.1	1.8	5.5	3.9	
W	.5	.4	.0	.0	.0	.0	.0	1.1	4.0	.9	.0	.7	1.4	1.0	.0	1.3	2.1	
NW	.1	.3	.1	.0	.0	.0	.0	.5	6.4	.2	.0	.0	1.6	1.1	.0	.4	.4	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	3.9	.0	.0	.0	.0	.0	.0	3.9	.0	4.3	.0	4.1	5.4	4.3	.0	3.4	2.0	
TOT OBS	413	1566	714	26	0	0	0	2719	8.4	537	44	580	279	486	55	533	205	
TOT PCT	15.2	57.4	26.3	1.0	.0	.0	.0	100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	

TABLE 3A

WIND DIR	0-6	WIND SPEED (KNOTS)				41+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)				
		7-16	17-27	28-40	00 03					06 09	12 15	18 21		
N	.4	.1	.0	.0	.0	.5	4.1	.1	1.1	.4	.0	.0		
NE	.2	.1	.0	.0	.0	.3	4.0	.1	.2	.7	.1	.0		
E	.8	1.3	.0	.0	.0	2.1	8.1	1.7	1.9	3.2	2.0	.0		
SE	11.9	29.6	7.4	.0	.0	43.9	9.5	40.8	41.6	52.1	43.1	.0		
S	15.7	24.7	1.9	.0	.0	42.3	8.5	46.6	42.3	34.1	44.8	.0		
SW	3.4	1.9	.1	.0	.0	5.4	6.3	3.8	6.5	3.8	5.0	.0		
W	1.0	.1	.0	.0	.0	1.1	4.0	.8	1.0	.9	1.3	.0		
NW	.3	.1	.0	.0	.0	.5	6.4	.2	.0	.0	.4	.0		
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
CALM	3.9	.0	.0	.0	.0	3.9	.0	4.0	4.3	3.9	3.0	.0		
TOT OBS	1022	1573	123	1	0	2719	8.4	581	859	541	738	.0		
TOT PCT	37.6	57.9	4.5	.0	.0	100.0		100.0	100.0	100.0	100.0	.0		

PERIOD: (PRIMARY) 1918-1977
(OVER-ALL) 1804-1977

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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	WIND SPEED (KNOTS)							MEAN	PCT FREQ	TOTAL OBS
		1-3	4-10	11-21	22-33	34-47	48+				
0000Z	4.0	11.0	57.3	27.2	.5	.0	.0	8.4	100.0	581	
0600Z	4.5	13.4	53.8	26.8	1.5	.0	.0	8.2	100.0	859	
1200Z	3.9	11.3	56.4	27.7	.7	.0	.0	8.4	100.0	541	
1800Z	3.0	9.2	63.1	23.8	.8	.0	.0	8.4	100.0	738	
TOT	105	308	1566	714	26	0	0	8.4		2719	
PCT	3.9	11.3	57.6	26.3	1.0	.0	.0	100.0			

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & 10	TOTAL OBS	MEAN CLOUD COVER
N	.0	.0	.0	.1	8.0	.0
NE	.0	.0	.0	.2	8.0	.0
E	.1	.1	.1	1.5	6.4	.0
SE	5.4	4.9	13.4	21.2	6.2	.1
S	8.0	5.7	12.8	19.2	5.7	.2
SW	.7	.8	1.2	1.0	5.1	.0
W	.0	.0	.0	.0	.0	.0
NW	.1	.0	.0	.3	8.5	.0
VAR	.0	.0	.0	.0	.0	.0
CALM	.4	.3	.7	.9	5.6	.1
TOT OBS	150	119	290	446	1005	5.9
TOT PCT	14.9	11.8	28.9	44.4	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8)
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

	000	150	300	600	1000	2000	3500	5000	6500	8000+	NH <5/8 ANY HGT	TOTAL OBS
	149	299	599	999	1999	3499	4999	6499	7999			
N	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	
NE	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	
E	.0	.0	.3	.5	.4	.6	.1	.1	.0	.0	.7	
SE	.1	.4	2.4	5.0	12.6	6.9	.8	.7	.7	.6	14.7	
S	.2	.2	1.9	6.0	9.2	6.0	1.5	.6	.5	.6	18.8	
SW	.0	.0	.0	.3	1.1	.4	.1	.0	.0	.0	1.8	
W	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
NW	.0	.0	.0	.1	.0	.1	.0	.0	.0	.0	.2	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.1	.0	.1	.2	.3	.2	.3	.0	.0	.0	1.1	
TOT OBS	4	7	47	123	238	143	29	15	12	12	375	1005
TOT PCT	.4	.7	4.7	12.2	23.7	14.2	2.9	1.5	1.2	1.2	37.3	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE
OF CEILING HEIGHT (NH >4/8) AND VSBY (NH)

CEILING (FEET)	VSBY (NH)			VSBY (NH)			VSBY (NH)			VSBY (NH)		
	>10	>5	>2	>1	>1/2	>1/4	>50YD	>0				
NH >4500	1.6	2.0	2.4	2.4	2.4	2.4	2.4	2.4				
NH >4000	2.4	3.5	3.8	3.8	3.8	3.8	3.8	3.8				
NH >3500	4.4	6.2	6.7	6.7	6.7	6.7	6.7	6.7				
NH >3000	15.7	19.8	21.0	21.0	21.0	21.0	21.0	21.0				
NH >2500	33.6	43.1	44.8	44.8	44.8	44.8	44.8	44.8				
NH >2000	41.4	54.4	56.8	56.8	56.9	56.9	56.9	56.9				
NH >1500	43.7	58.2	61.2	61.3	61.4	61.4	61.4	61.4				
NH >1000	44.3	58.8	61.9	62.0	62.1	62.1	62.1	62.1				
NH >500	44.4	58.9	62.3	62.4	62.5	62.5	62.5	62.5				
TOTAL	450	597	631	632	633	633	633	633				

TOTAL NUMBER OF OBS: 1013

PCT FREQ NH <5/8: 37.3

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

	0	1	2	3	4	5	6	7	8	8 OBSCD	TOTAL OBS
	10.0	6.5	7.0	7.2	6.5	4.6	7.5	11.1	39.3	.3	1090

PERIOD: (PRIMARY) 1914-1977
(OVER-ALL) 1864-1977

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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1	
	TOT %	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1	
1/2<1	PCP	.0	.0	.0	.1	.1	.0	.0	.0	.0	.0	.1	
	NO PCP	* .1	.1	1.7	7.4	.5	.0	.1	.0	.0	.0	9.8	
	TOT %	* .1	.1	1.8	7.4	.5	.0	.1	.0	.0	.0	10.0	
1<2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.1	.1	.0	.0	.0	.0	.0	.0	.1	
	TOT %	.0	.0	.1	.1	.0	.0	.0	.0	.0	.0	.1	
2<5	PCP	.0	.0	.0	.1	.1	.0	.0	.0	.0	.1	.3	
	NO PCP	.0	.0	.0	1.6	1.6	.1	.0	.1	.0	.2	3.7	
	TOT %	.0	.0	.0	1.7	1.7	.1	.0	.1	.0	.3	3.9	
5<10	PCP	.0	.0	.1	.1	.2	.0	.0	.1	.0	.0	.5	
	NO PCP	.1	.1	.1	7.4	11.3	1.4	.3	* .0	.0	1.0	21.8	
	TOT %	.1	.1	.3	7.5	11.5	1.4	.3	.1	.0	1.0	22.3	
10+	PCP	.0	.0	.0	.1	.1	.0	.0	.0	.0	.0	.1	
	NO PCP	.0	.1	1.9	30.0	27.7	2.2	.2	.1	.0	1.4	63.5	
	TOT %	.0	.1	1.9	30.1	27.7	2.2	.2	.1	.0	1.4	63.6	
TOT OBS													1424
TOT PCT		.2	.2	2.3	41.1	48.4	4.3	.4	.4	.0	2.7	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1	
1/2<1	0-3	* .1	.1	.2	2.6	.1	.0	.1	.0	.0	.0	3.1	
	4-10	.0	.0	.0	1.2	3.6	.4	.0	.0	.0	.0	5.1	
	11-21	.0	.0	.0	.7	.4	.0	.0	.0	.0	.0	.6	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	* .1	.1	1.6	6.5	.4	.0	.1	.0	.0	.0	8.8	
1<2	0-3	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.1	
	4-10	.0	.0	.1	.1	.0	.0	.0	.0	.0	.0	.1	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.1	.1	.0	.0	.0	.0	.0	.0	.2	
2<5	0-3	.0	.0	.1	.3	.2	.1	.0	.0	.0	.3	.9	
	4-10	.0	.0	.0	1.0	1.1	.1	.0	.1	.0	.2	2.2	
	11-21	.0	.0	.0	.4	.4	.0	.0	.0	.0	.0	.7	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.1	1.7	1.6	.2	.0	.1	.0	.3	3.9	
5<10	0-3	.1	.0	.1	.6	1.4	.2	.1	.0	.0	1.2	3.5	
	4-10	.1	.0	.2	4.4	6.9	1.1	.2	.1	.0	.0	13.0	
	11-21	.0	.1	.0	2.6	2.3	.3	.0	.1	.0	.0	5.2	
	22+	.0	.0	.0	.0	.2	* .0	.0	.0	.0	.0	.2	
	TOT %	.2	.1	.3	7.5	10.7	1.6	.3	.2	.0	1.2	22.0	
10+	0-3	.1	.1	.3	.8	2.5	.7	.1	.0	.0	1.9	6.4	
	4-10	.0	.0	1.1	16.2	16.6	1.8	.3	.1	.0	.0	36.2	
	11-21	.0	.0	.4	12.7	9.0	.2	.0	.0	.0	.0	22.3	
	22+	.0	.0	* .0	.2	.0	.0	.0	.0	.0	.0	.3	
	TOT %	.1	.1	1.8	29.7	28.3	2.8	.4	.1	.0	1.9	65.2	
TOT OBS													1633
TOT PCT		.3	.2	2.3	40.6	47.1	5.1	.7	.4	.0	3.4	100.0	

PERIOD: (PRIMARY) 1918-1977
(OVER-ALL) 1864-1977

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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NH > 4/8) AND
OCCURRENCE OF NH < 3/8 BY HOUR

HOURL (GMT)	0'0	150	300	600	1000	2000	3500	5000	6500	8000+	TOTAL	NH < 3/8 ANY HGT	TOTAL OBS
00003	.0	1.1	2.2	8.2	16.0	11.9	1.9	.4	1.5	1.9	45.0	55.0	269
06009	1.0	.8	6.3	8.6	18.8	16.0	2.7	2.0	1.6	.8	59.0	41.0	236
12015	.0	.4	7.6	17.9	31.9	14.1	4.9	1.2	1.1	1.1	80.6	19.4	263
18021	.0	.4	2.0	12.6	26.0	14.2	1.6	2.0	.4	.8	59.8	40.2	254
TOT PCT	4 .4	7 .7	47 4.5	123 11.8	241 23.1	146 14.0	29 2.8	15 1.4	12 1.2	12 1.2	636 61.0	406 39.0	1042 100.0

TABLE 11

PERCENT FREQUENCY VSBY (NH) BY HOUR

HOURL (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.0	7.2	.5	4.3	21.0	67.0	391
06009	.0	11.7	.0	3.8	22.5	62.0	479
12015	.3	7.4	.3	5.3	23.5	63.2	378
18021	.0	11.9	.0	2.1	20.2	65.8	421
TOT PCT	1 .1	142 9.7	3 .2	64 3.8	366 21.8	1075 64.4	1669 100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NH) AND/OR
CEILING HGT (FEET, NH > 4/8) BY HOUR

HOURL (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND 5+	NH < 5/8 AND 5+	TOTAL OBS
00003	.0	3.9	16.3	31.8	51.9	258
06009	1.6	8.3	19.4	41.5	39.1	248
12015	.0	8.1	30.1	53.7	16.2	259
18021	.0	2.4	17.3	45.6	37.1	248
TOT PCT	4 .4	58 5.7	211 20.8	437 43.1	365 36.0	1013 100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
75/79	.0	.0	.1	.1	.3	.3	.2	.7	20	1.7
70/74	.0	.0	.0	.1	1.3	4.8	2.4	1.6	122	10.2
65/69	.0	.0	.0	.0	1.3	12.2	26.2	13.5	636	53.3
60/64	.0	.0	.0	.0	.2	2.3	14.9	18.4	404	33.9
55/59	.0	.0	.0	.0	.0	.1	.2	.7	11	.9
TOTAL PCT	0 .0	0 .0	1 .1	2 .2	38 3.2	236 19.8	524 43.9	392 32.9	1193	100.0

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
75/79	.0	.1	.0	1.1	.3	.1	.0	.1	.0	.0
70/74	.0	.0	.3	6.2	3.4	.3	.0	.0	.0	.1
65/69	.0	.0	1.3	27.1	20.3	2.4	.5	.1	.0	1.6
60/64	.1	.1	.8	12.5	17.2	1.5	.1	.3	.0	1.4
55/59	.0	.0	.0	.3	.4	.0	.0	.0	.0	.2
TOTAL	.1	.2	2.4	47.2	41.7	4.2	.6	.4	.0	3.3

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOURL (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	73	72	70	66	62	60	59	65.7	607
06009	72	69	68	64	60	58	55	63.9	891
12015	84	73	70	65	61	59	54	65.2	568
18021	84	79	76	68	63	62	60	69.0	713
TOT	84	76	73	65	61	59	54	65.9	2779

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOURL (GMT)	0-29	30-39	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	.0	1.7	16.7	48.6	33.0	86	288
06009	.0	.0	.9	11.9	43.0	44.2	88	328
12015	.0	.0	.7	17.9	44.4	37.1	86	302
18021	.0	1.0	9.5	33.2	39.0	17.3	80	295
TOT	0	3	38	239	530	403	85	1213

PERIOD: (PRIMARY) 1918-1977
(OVER-ALL) 1864-1977

NOVEMBER

AREA 0032 LIMA
11.25 78.44

TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	57 50	61 54	65 58	69 62	73 66	77 70	TOT	W FOG	NO FOG
17/19	.0	.0	.0	.0	.0	.1	1	.0	.1
14/16	.0	.0	.0	.0	.0	.1	1	.0	.1
11/13	.0	.1	.0	.3	.2	.3	11	.1	.8
9/10	.0	.0	.2	.7	.3	.1	17	.4	.9
7/8	.0	.1	2.2	1.1	.4	.2	51	.5	3.3
6	.0	.2	1.6	.2	.3	.0	30	.8	1.4
5	.0	.8	1.4	1.3	.5	.0	54	.8	3.3
4	.0	1.6	2.3	1.3	.5	.0	75	.9	4.7
3	.1	1.6	4.4	2.1	.2	.0	111	1.1	7.3
2	.2	3.8	7.0	1.9	.1	.0	172	2.7	10.2
1	.2	5.1	6.6	1.4	.2	.0	179	1.4	12.1
0	.3	8.3	10.1	.8	.0	.0	258	2.2	17.2
-1	.4	5.0	7.5	.9	.1	.0	184	.8	13.0
-2	.1	2.6	3.3	.2	.0	.0	82	.3	5.9
-3	.2	1.6	2.0	.3	.0	.0	54	.1	4.0
-4	.1	1.1	.8	.1	.0	.1	27	.0	2.0
-5	.0	.5	.2	.1	.1	.0	10	.0	.8
-6	.1	.5	.1	.0	.0	.0	8	.0	.6
-7/-8	.0	.2	.1	.0	.0	.0	3	.0	.2
TOTAL	19	436	661	186	36	10	1328	159	1169
PCT	1.4	32.8	49.8	12.5	2.7	.8	100.0	12.0	88.0

PERIOD: (OVER-ALL) 1963-1977

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.2
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.2

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.3	.0	.0	.0	.0	.3	.0	1.9	.2	.0	.0	.0	2.1
1-2	.0	.6	.1	.0	.0	.0	.7	1.1	11.1	3.0	.0	.0	.0	15.2
3-6	.0	.2	.1	.0	.0	.0	.3	.0	7.2	14.1	.0	.0	.0	21.3
7	.0	.1	.2	.0	.0	.0	.3	.0	2.1	5.1	.0	.0	.0	7.3
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.2	1.7	.0	.0	.0	1.9
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.6	.0	.0	.0	.6
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	1.2	.9	.0	.0	.0	1.7	1.1	22.5	24.8	.0	.0	.0	48.4

PERIOD: (OVER-ALL) 1963-1977

NOVEMBER

AREA 0032 LIMA
11.25 78.4W

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	S						PCT	SW						PCT
	1-3	4-10	11-21	22-33	34-47	48+		1-3	4-10	11-21	22-33	34-47	48+	
<1	.9	2.4	.3	.0	.0	.0	3.5	.4	.5	.0	.0	.0	.0	1.0
1-2	1.0	12.0	3.8	.0	.0	.0	16.7	.3	1.1	.2	.0	.0	.0	1.5
3-4	.0	8.0	6.7	.1	.0	.0	14.9	.2	.3	.7	.0	.0	.0	1.4
5-6	.0	1.5	3.4	.1	.0	.0	5.0	.0	.0	.0	.0	.0	.0	.1
7	.0	.3	1.6	.0	.0	.0	1.9	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.1	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.1	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.8	24.1	16.1	.3	.0	.0	42.3	.9	2.1	.9	.1	.0	.0	4.0

HGT	NW						PCT	TOTAL PCT						TOTAL PCT
	1-3	4-10	11-21	22-33	34-47	48+		1-3	4-10	11-21	22-33	34-47	48+	
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.2
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.2
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.0	.0	.0	.0	.0	.0	.0	.2	.2	.0	.0	.0	.4

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	4.7	5.6	.5	.0	.0	.0	10.8	
1-2	2.3	24.7	7.0	.0	.0	.0	34.1	
3-4	.2	15.7	21.4	.2	.0	.0	37.5	
5-6	.0	3.8	9.0	.2	.0	.0	13.0	
7	.0	.5	3.2	.0	.0	.0	3.8	
8-9	.0	.0	.7	.0	.0	.0	.7	
10-11	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.2	.0	.0	.0	.2	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	7.2	50.3	42.2	.4	.0	.0	100.0	555

PERIOD: (OVER-ALL) 1949-1977

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	1.9	9.5	24.3	6.4	2.8	.6	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	394	3
6-7	.1	.8	7.3	10.0	2.8	.5	.1	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	189	3
8-9	.0	.6	4.1	3.8	3.6	1.3	2.1	.6	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	141	6
10-11	.0	.2	1.5	1.9	.9	.5	.8	.6	.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	63	7
12-13	.0	.0	.0	.2	.9	.8	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	29	7
>19	.0	.0	.0	.2	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3	6
INDEX	1.4	.7	2.2	2.0	.2	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	37	3
TOTAL	29	102	340	212	97	32	30	13	9	0	0	0	0	0	0	0	0	0	0	864	4
PCT	3.4	11.8	39.4	24.5	11.2	3.7	3.5	1.5	1.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	

PERIOD: (PRIMARY) 1917-1977
(OVER-ALL) 1867-1977

DECEMBER

AREA 0032 LIMA
11.25 78.3W

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

PRECIPITATION TYPE										OTHER WEATHER PHENOMENA					
WIND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT 08 TIME	PCPN PAST HOUR	THDR LTNG	FDG WD PCPN	FDG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST BLWG SNOW	NO SIG WEA
N	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	22.2	22.2	.0	.0	.0	55.6
E	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
SE	.5	.0	.0	.0	.0	.0	.0	.5	.3	1.2	4.6	.0	2.2	.0	91.2
S	.1	.0	.0	.0	.0	.0	.0	.1	.3	.1	6.4	.3	2.5	.0	90.3
SW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	15.6	.5	.5	.0	83.4
W	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
NW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	7.1	.0	3.6	.0	.0	89.3
TOT PCT	.3	.0	.0	.0	.0	.0	.0	.3	.3	.8	5.8	.3	2.1	.0	90.4
TOT OBS:	1118														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT 08 TIME	PCPN PAST HOUR	THDR LTNG	FDG WD PCPN	FDG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
00403	.7	.0	.0	.0	.0	.0	.0	.7	.4	.4	2.2	.0	2.6	.0	93.8
06409	.3	.0	.0	.0	.0	.0	.0	.3	.0	2.3	5.0	.0	2.3	.0	90.0
12415	.0	.0	.0	.0	.0	.0	.0	.0	.7	.7	7.3	.3	2.3	.0	88.7
18421	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	9.0	.7	1.5	.0	88.8
TOT PCT	.3	.0	.0	.0	.0	.0	.0	.3	.3	.9	5.9	.3	2.2	.0	90.3
TOT OBS: 1140															

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)						TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	48+				00	03	06	09	12	15	18	21
N	.1	.4	.0	.1	.0	.0	.6	7.4	.4	.0	.3	1.1	.8	.0	.2	.7	
NE	.2	.2	.2	.0	.0	.0	.6	7.4	.3	.7	1.2	.8	.6	.0	.3	.3	
E	.3	1.3	.4	.0	.0	.0	2.0	7.3	.5	3.9	1.7	1.9	2.6	.7	3.6	.3	
SE	4.3	27.3	11.0	.1	.0	.0	42.7	8.5	37.0	42.8	39.0	40.5	44.8	56.8	45.8	42.9	
S	5.6	25.0	9.1	.2	.0	.0	40.9	8.0	47.8	48.7	44.3	33.4	34.9	33.8	38.4	41.9	
SW	1.2	4.1	.2	.0	.0	.0	5.5	5.8	5.7	3.9	5.7	6.9	3.3	4.7	5.6	7.9	
W	.5	.8	.1	.0	.0	.0	1.1	4.3	1.3	.0	1.2	1.6	.3	.0	1.1	1.9	
NW	.3	.4	.0	.0	.0	.0	.7	4.8	.2	.0	.6	1.2	.9	.0	.5	1.8	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	5.9						5.9	.0	5.6	.0	6.0	12.5	7.8	.0	3.0	2.2	
TOT OBS	449	1489	509	9	0	0	2430	7.5	479	38	515	264	450	37	467	180	
TOT PCT	18.5	60.2	20.9	.4	.0	.0	100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	

TABLE 3A

WIND DIR	0-6	WIND SPEED (KNOTS)				41+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)			
		7-16	17-27	28-40	00 03					06 09	12 15	18 21	
N	.4	.1	.1	.0	.0	.6	7.4	.7	.6	.8	.3		
NE	.4	.2	.1	.0	.0	.6	7.4	.3	1.1	.5	.5		
E	1.2	.7	.1	.0	.0	2.0	7.3	.7	1.8	2.8	2.7		
SE	13.0	26.2	1.5	.0	.0	42.7	8.5	38.2	39.5	49.4	45.0		
S	17.5	22.0	1.4	.0	.0	40.9	8.0	47.8	40.6	34.8	40.2		
SW	3.6	1.9	.0	.0	.0	5.5	5.8	5.6	6.1	3.4	6.2		
W	.9	.2	.0	.0	.0	1.1	4.3	1.2	1.3	.3	1.3		
NW	.5	.2	.0	.0	.0	.7	4.8	.2	.8	.8	.9		
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
CALM	5.9					5.9	.0	5.2	8.2	7.2	2.8		
TOT OBS	1103	1251	76	0	0	2430	7.5	517	779	487	647		
TOT PCT	45.4	51.5	3.1	.0	.0	100.0		100.0	100.0	100.0	100.0		

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PERIOD: (PRIMARY) 1913-1977
(COVER-ALL) 1868-1977

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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)				48+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47					
0000Z	5.2	8.5	64.8	21.1	.4	.0	.0	.0	7.8	100.0	517
0600Z	4.2	12.8	54.9	19.4	.6	.0	.0	.0	7.2	100.0	779
1200Z	7.2	10.0	35.4	21.1	.2	.0	.0	.0	7.4	100.0	487
1800Z	2.8	12.8	61.7	22.6	.2	.0	.0	.0	7.9	100.0	647
TOT	144	305	1463	509	9	0	0	0	7.5		2430
PCT	5.9	12.6	60.2	20.9	.4	.0	.0	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & 9	TOTAL OBS	MEAN CLOUD COVER
N	.0	.0	.4	.0	6.6	7.6
NE	.0	.0	.1	.1	7.6	7.6
E	.5	.2	.4	.2	4.8	4.8
SE	9.8	7.3	15.3	10.6	5.0	5.0
S	10.0	8.4	18.4	10.9	5.0	5.0
SW	.7	.9	.9	1.6	5.5	5.5
W	.1	.1	.2	.0	4.3	4.3
NW	.0	.0	.1	.0	6.0	6.0
VAR	.0	.0	.0	.0	.0	.0
CALM	.9	.7	.4	.9	3.1	3.1
TOT OBS	164	131	272	176	743	5.0
TOT PCT	22.1	17.6	36.6	23.7	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NM >4/8)
AND OCCURRENCE OF NM <5/8 BY WIND DIRECTION

	000	150	300	600	1000	2000	3500	5000	6500	8000+	NM <5/8 ANY HGT	TOTAL OBS
	149	299	599	999	1999	3499	6499	7999				
N	.1	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1	
NE	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	
E	.0	.0	.0	.1	.3	.2	.0	.0	.1	.0	.9	
SE	.3	.0	.6	4.0	5.3	4.0	1.3	.4	.5	.5	23.0	
S	.2	.0	.7	4.6	7.0	4.0	.9	.4	.5	.5	27.0	
SW	.0	.1	.4	1.1	.3	.0	.1	.0	.0	.0	2.1	
W	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.3	
NW	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.3	.3	.0	.0	.1	.0	.0	.0	.0	1.6	
TOT OBS	5	0	12	70	142	65	17	7	8	7	410	743
TOT PCT	.7	.0	1.6	9.4	19.1	8.7	2.3	.9	1.1	.9	55.2	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE
OF CEILING HEIGHT (NM >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)							
	= OR >10	= OR >5	= OR >2	= OR >1	= OR >1/2	= OR >1/4	= OR >50YD	= OR >0
= NM >6500	2.0	2.1	2.2	2.2	2.2	2.2	2.2	2.2
= NM >5000	2.9	3.0	3.2	3.2	3.2	3.2	3.2	3.2
= NM >3500	4.5	5.3	5.5	5.5	5.5	5.5	5.5	5.5
= NM >2000	11.6	13.9	14.2	14.2	14.2	14.2	14.2	14.2
= NM >1000	27.5	32.9	33.4	33.4	33.4	33.4	33.4	33.4
= NM >600	34.6	42.1	42.9	42.9	42.9	42.9	42.9	42.9
= NM >300	35.3	43.6	44.6	44.6	44.6	44.6	44.6	44.6
= NM >150	35.3	43.6	44.6	44.6	44.6	44.6	44.6	44.6
= NM >0	35.5	43.9	45.0	45.0	45.1	45.1	45.1	45.3
TOTAL	270	334	342	342	343	343	343	344

TOTAL NUMBER OF OBS: 760

PCT FREQ NM <5/8: 54.7

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

	0	1	2	3	4	5	6	7	8	OBSCD	TOTAL OBS
	13.5	10.5	13.6	9.7	7.1	6.2	9.7	10.9	14.6	.1	822

PERIOD: (PRIMARY) 1913-1977
(OVER-ALL) 1867-1977

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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSRY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.1	.4	.1	.0	.0	.0	.0	.5	
	TOT %	.0	.0	.0	.1	.4	.1	.0	.0	.0	.0	.5	
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.1	.0	1.6	2.1	.6	.0	.0	.0	.0	4.4	
	TOT %	.0	.1	.0	1.6	2.1	.6	.0	.0	.0	.0	4.4	
1<2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.2	
	TOT %	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.2	
2<5	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.7	.8	*	.0	.0	.0	.1	1.6	
	TOT %	.0	.0	.0	.7	.8	*	.0	.0	.0	.1	1.6	
5<10	PCP	.0	.0	.0	.2	*	.0	.0	.0	.0	.0	.3	
	NO PCP	.1	.2	.2	8.2	8.6	.6	.2	*	.0	.9	19.1	
	TOT %	.1	.2	.2	8.4	8.7	.6	.2	*	.0	.9	19.3	
10+	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.2	.1	1.5	31.1	36.2	3.1	.1	.1	.0	1.5	73.9	
	TOT %	.2	.1	1.5	31.1	36.2	3.1	.1	.1	.0	1.5	73.9	
TOT OBS													1107
TOT PCT		.2	.4	1.7	42.1	48.1	4.4	.3	.1	.0	2.5	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED
WITH VARYING VALUES OF VISIBILITY

VSRY (NM)	SFD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.1	*	.0	.0	.0	.0	.2	
	4-10	.0	.0	.0	.2	.3	.1	.0	.0	.0	.0	.5	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.2	.4	.1	.0	.0	.0	.0	.7	
1/2<1	0-3	.0	.1	.0	.7	1.0	.3	.0	.0	.0	.0	2.1	
	4-10	.0	.0	.0	.7	.8	.3	*	.0	.0	.0	1.8	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.1	.0	1.4	1.8	.6	*	.0	.0	.0	3.9	
1<2	0-3	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.1	
	4-10	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.2	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.3	.0	.0	.0	.0	.0	.0	.3	
2<5	0-3	.0	.0	.0	.2	.1	.0	.0	.0	.0	.4	.7	
	4-10	.0	.0	.0	.6	.5	*	.0	.0	.0	.0	1.2	
	11-21	.0	.0	.0	.1	.2	.0	.0	.0	.0	.0	.2	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.9	.8	*	.0	.0	.0	.4	2.1	
5<10	0-3	.0	.0	.0	.8	.9	.1	*	.2	.0	1.1	3.1	
	4-10	.1	.1	.1	5.4	6.1	1.0	.1	.1	.0	.0	12.9	
	11-21	.0	.1	.1	2.1	1.7	.1	.1	.0	.0	.0	4.2	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.1	.2	.2	8.2	8.8	1.2	.3	.2	.0	1.1	20.1	
10+	0-3	.0	.0	.1	1.9	3.6	.7	.3	.0	.0	2.2	8.9	
	4-10	.4	*	.9	18.7	21.2	2.6	.2	.2	.0	.0	44.1	
	11-21	.0	.1	.4	8.4	10.7	.2	.0	.0	.0	.0	19.6	
	22+	.0	.0	.0	.1	.1	.0	.0	.0	.0	.0	.2	
	TOT %	.4	.1	1.3	29.1	35.6	3.5	.5	.2	.0	2.2	72.9	
TOT OBS													1298
TOT PCT		.4	.3	1.5	40.2	47.3	5.4	.8	.4	.0	3.7	100.0	

PERIOD: (PRIMARY) 1913-1977
(OVER-ALL) 1861-1977

DECEMBER

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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET) NH $\geq 4/8$ AND
OCCURRENCE OF NH $\leq 5/8$ BY HOUR

HOUR (GMT)	000 149	150 299	300 559	400 959	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL OBS	NH $\leq 5/8$ ANY HGT	TOTAL OBS
0000Z	.5	.0	.5	9.0	15.6	10.6	2.0	1.0	1.0	.5	40.7	59.3	195
0600Z	.5	.0	1.0	7.2	19.6	8.2	1.5	.5	1.0	1.0	40.7	59.3	194
1201Z	.9	.0	4.1	14.2	21.9	9.1	2.7	1.4	1.4	2.3	58.0	42.0	219
1802Z	.6	.0	.6	5.0	16.2	5.0	2.8	.6	.6	.6	31.8	68.2	179
TOT PCT	5 .6	0 .0	13 1.6	72 9.1	146 18.5	60 8.3	18 2.3	7 .9	8 1.0	9 1.1	344 43.5	447 56.5	791 100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2 149	1/2-1 299	1-2 559	2-5 959	5-10 1999	10+ 3499	TOTAL OBS
0000Z	.0	2.0	.0	2.6	18.6	76.2	311
0600Z	1.0	3.9	.3	.8	21.4	72.6	383
1201Z	1.3	3.1	.6	2.5	21.4	71.1	318
1802Z	.3	5.9	.3	2.9	18.9	71.7	307
TOT PCT	9 .7	51 3.9	4 .3	28 2.1	260 20.2	961 72.0	1319 100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSRY (NM) AND/OR
CEILING HGT (FEET) NH $\geq 4/8$ BY HOUR

HOUR (GMT)	<150 149	<600 299	<1000 559	1000+ 959	NH $\leq 5/8$ AND 5+	TOTAL OBS
0000Z	.5	1.0	10.2	31.0	58.9	197
0600Z	.5	1.6	9.1	33.2	57.8	187
1201Z	.9	5.2	21.6	38.5	39.9	213
1802Z	.6	1.2	8.0	27.6	64.4	163
TOT PCT	5 .7	18 2.4	96 12.6	250 32.9	414 54.5	760 100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
80/84	.0	.0	.1	.0	.1	.0	.1	.0	3	.3
75/79	.0	.0	.0	.0	1.6	3.2	.5	.8	60	6.1
70/74	.0	.0	.0	.0	.9	4.5	18.7	5.7	330	33.0
65/69	.0	.0	.0	.0	.3	4.1	19.0	23.8	462	47.3
60/64	.0	.0	.0	.0	.0	.0	7.5	9.0	122	12.5
TOTAL	0	0	1	0	28	154	404	385	977	100.0
PCT	.0	.0	.1	.0	2.9	15.8	41.9	39.4		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
80	.0	.0	.0	.1	.2	.0	.0	.0	.0	.0
75	.0	.0	.0	2.8	3.0	.3	.0	.0	.0	.0
70	.2	.8	.8	16.5	14.5	.5	.3	.8	.0	.9
65	.0	.4	.8	19.1	23.7	2.0	.1	.8	.0	1.0
60	.1	.0	.3	5.5	4.8	.7	.0	.1	.0	1.0
30	.3	.4	1.9	44.0	46.3	3.6	.4	.2	.0	3.0

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	95%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
0000Z	82	76	73	68	64	62	60	68.3	519
0600Z	82	73	71	68	62	60	58	66.3	793
1201Z	84	79	73	67	62	61	59	67.8	488
1802Z	83	82	79	72	65	63	62	71.6	587
TOT	84	79	75	68	63	61	58	68.4	2387

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
0000Z	.0	.0	1.2	15.2	42.4	41.2	86	243		
0600Z	.0	.0	.0	7.6	38.0	54.4	89	263		
1201Z	.0	.4	1.5	10.6	41.9	45.7	87	265		
1802Z	.0	.0	9.6	31.3	43.9	15.2	81	230		
TOT	0	1	29	157	415	399	86	1001		

DECEMBER

PERIOD: (PRIMARY) 1913-1977
(OVER-ALL) 1865-1977

TABLE 17

AREA 0032 LIMA
11.25 78.34

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TEMP DIF	57 50	61 64	65 68	69 72	73 76	77 80	81 84	TOT	% FOG	% FOG
11/13	.0	.0	.0	.1	.4	.5	.5	15	.0	1.5
2/10	.0	.0	.1	.7	.7	.3	.0	18	.1	1.7
7/8	.0	.0	.5	1.3	.9	.8	.1	36	.3	3.2
6	.0	.1	.7	.1	.5	.4	.0	18	.2	1.6
5	.0	.8	1.4	1.3	1.2	.7	.0	54	.7	4.6
4	.0	.5	2.0	2.0	1.1	.3	.0	60	1.0	4.9
3	.0	.4	3.8	2.6	1.7	.1	.1	89	.8	7.9
2	.0	1.8	6.7	3.9	1.6	.1	.0	144	1.3	12.8
1	.2	2.0	5.7	5.6	2.0	.0	.0	157	.8	14.5
0	.1	2.0	5.9	7.2	1.7	.0	.0	173	.5	16.4
-1	.0	2.1	3.4	5.5	.2	.0	.0	115	.4	10.8
-2	.0	.9	2.4	3.6	.2	.0	.0	73	.3	6.8
-3	.0	.4	2.0	1.7	.0	.0	.0	42	.2	3.9
-4	.0	.3	1.2	.4	.0	.1	.0	20	.0	2.0
-5	.0	.2	.4	.1	.0	.0	.0	7	.0	.7
-6	.0	.0	.1	.2	.0	.0	.0	3	.0	.3
-7/-8	.0	.0	.0	.1	.0	.0	.0	1	.0	.1
TOTAL	3	117	371	371	33	7		1025		95.9
FCT	.3	11.4	36.3	36.2	11.9	3.2	.7	100.0	6.4	93.6

PERIOD: (OVER-ALL) 1963-1977

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	NE	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.2	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.2	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.5	.0	.0	.0	.0	.5	.0	.0	.0	.0	.0	.0	.0	.0

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	SE	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.2	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.7	.0	.0	.0	.0	1.5	.0	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.7	.0	.0	.0	.0	1.2	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	1.7	1.2	.0	.0	.0	2.9	.0	2.2	27.5	17.5	.0	.0	.0	47.2

PERIOD: (OVER-ALL) 1963-1977

DECEMBER

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TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.7	3.8	.2	.0	.0	.0	4.6	.2	1.5	.0	.0	.0	.0	.2	
1-2	1.3	13.0	4.4	.0	.0	.0	18.9	.2	.8	.2	.0	.0	.0	1.9	
3-4	.0	5.3	7.0	.0	.0	.0	14.9	.0	.1	.0	.0	.0	.0	1.0	
5-6	.0	.7	2.8	.0	.0	.0	4.5	.0	.0	.0	.0	.0	.0	.1	
7	.0	.4	1.0	.0	.0	.0	1.3	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.2	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.2	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	2.6	23.3	17.7	.0	.0	.0	43.6	.2	2.6	.4	.0	.0	.0	3.2	

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	
1-2	.0	.2	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.1	
3-4	.0	.0	.4	.0	.0	.0	.4	.0	.0	.0	.0	.0	.0	.0	
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	
TOT PCT	.0	.2	.4	.0	.0	.0	.6	.0	.1	.0	.0	.0	.0	.1	98.1

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	5.2	7.6	.2	.0	.0	.0	13.0	
1-2	2.8	30.5	13.5	.0	.0	.0	46.8	
3-4	.7	13.0	13.9	.0	.0	.0	27.7	
5-6	.2	2.6	6.6	.0	.0	.0	9.5	
7	.0	.9	1.7	.0	.0	.0	2.6	
8-9	.0	.0	.2	.0	.0	.0	.2	
10-11	.0	.2	.0	.0	.0	.0	.2	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	9.0	54.6	36.2	.0	.0	.0	100.0	423

PERIOD: (OVER-ALL) 1949-1977

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	3.3	13.2	18.8	4.8	.9	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	285	3
6-7	.0	4.6	10.7	11.3	3.5	.6	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	213	4
8-9	.1	.1	5.1	5.2	2.9	.1	.6	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	99	5
10-11	.0	1.0	1.3	1.7	.4	.1	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	34	4
12-13	.0	.0	.7	.6	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	12	5
>13	.0	.0	.0	.1	.1	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3	7
INDET	2.3	1.7	1.6	.3	.3	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	44	2
TOTAL	40	143	264	146	59	7	7	4	0	0	0	0	0	0	0	0	0	0	0	690	4
PCT	5.8	20.7	38.3	24.1	8.6	1.0	1.0	.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	

PERIOD: (PRIMARY) 1914-1978
(OVER-ALL) 1854-1978

ANNUAL

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TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

PRECIPITATION TYPE											OTHER WEATHER PHENOMENA					
WIND DIR	RAIN	RAIN SHR	DRZL	FRZG PCPN	SNOW PCPN	OTHER FZN PCPN	HAIL	PCPN AT 00 TIME	PCPN PAST HOUR	THOR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG JUST	NO SIG WEA	
N	.0	.0	.7	.0	.0	.0	.0	.7	.0	.0	5.2	.0	.0	.0	94.1	
NE	.0	2.2	4.3	.0	.0	.0	.0	6.5	2.4	1.9	9.8	.0	1.6	.0	78.0	
E	1.7	.0	1.5	.0	.0	.0	.0	3.8	1.0	.0	3.5	.0	3.6	.0	88.1	
SE	.4	.3	1.0	.0	.0	.0	.0	1.6	.7	.3	3.1	.1	2.2	.1	92.1	
S	.1	.1	.8	.0	.0	.0	.0	1.1	.4	.1	4.8	.2	4.2	.1	89.1	
SW	.8	.0	.9	.0	.0	.0	.0	1.0	.2	.6	6.6	.4	5.4	.2	85.1	
W	.0	1.1	.0	.0	.0	.0	.0	1.1	2.7	1.6	2.0	.0	2.3	.0	90.3	
NW	1.0	.0	.0	.0	.0	.0	.0	1.0	.0	1.0	2.8	.0	2.7	.0	91.9	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.3	.0	2.5	.0	.0	.0	.0	2.4	.1	2.0	9.8	.6	6.6	.0	77.9	
TOT PCT	.3	.2	.9	.0	.0	.0	*	1.4	.5	.3	4.3	.2	3.3	*	90.0	
TOT OBS: 15338																

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHR	DRZL	FRZG PCPN	SNOW PCPN	OTHER FZN PCPN	HAIL	PCPN AT 00 TIME	PCPN PAST HOUR	THOR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG JUST	NO SIG WEA
0000	.5	.2	.4	.0	.0	.0	.0	1.0	.5	.2	2.7	.1	2.9	.1	92.4
0600	.4	.6	1.2	.0	.0	.0	.0	1.8	.3	.7	3.9	.1	2.6	.0	90.7
1200	.4	.2	1.7	.0	.0	.0	*	2.3	1.0	.1	6.6	.3	3.5	*	86.2
1800	.1	.2	.5	.0	.0	.0	.0	.4	.3	.0	4.5	.2	4.1	*	89.9
TOT PCT	.5	.2	1.0	.0	.0	.0	*	1.5	.5	.3	4.5	.2	3.3	*	89.8
TOT OBS: 15701															

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FRQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	48+	00				03	06	09	12	15	18	21	
N	.2	.2	.9	*	.0	.0	.6	4.8	.2	.2	.6	1.4	.7	.4	.4	.7		
NE	.2	.2	.1	*	.0	.0	.6	8.5	.4	.4	.5	1.1	.8	.6	.6	.3		
E	.5	1.0	.7	*	.0	.0	2.8	8.3	1.7	4.0	2.3	3.3	3.2	4.1	3.7	1.9		
SE	2.0	25.4	17.4	.9	.1	.0	47.2	10.0	44.4	56.7	45.5	46.2	51.1	54.6	48.4	42.4		
S	3.8	23.4	10.4	.4	*	.0	38.1	8.9	43.1	31.9	39.8	32.5	34.8	32.0	30.2	42.4		
SW	1.0	3.0	.5	*	.0	.0	4.5	6.4	5.1	4.4	4.5	4.9	3.2	6.6	4.2	6.5		
W	.4	.4	.1	.0	.0	.0	1.0	4.9	1.0	.7	1.0	1.5	.7	.1	1.1	1.7		
NW	.3	.4	*	*	.0	.0	.7	5.4	.5	.5	.8	1.7	.6	.6	.5	.7		
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
CALM	4.5	.0	.0	.0	.0	.0	4.5	.0	3.7	1.1	3.0	7.4	5.0	1.0	3.7	3.3		
TOT OBS							30897				6239	426	6399	3135	5777	470	6180	2171
TOT PCT	13.8	55.2	22.5	1.4	.1	.0		100.0		8.8	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)					TOTAL OBS	PCT FRQ	MEAN SPD	HOUR (GMT)				
	0-6	7-15	17-27	28-40	41+				00	06	12	18	21
N	.5	.1	*	.0	.0	.0	.6	4.8	.2	.8	.7	.5	
NE	.4	.2	*	.0	.0	.0	.6	8.5	.4	.7	.8	.5	
E	1.2	1.3	.2	*	.0	.0	2.8	8.3	1.9	2.6	3.2	3.3	
SE	12.6	29.7	4.7	.2	*	.0	47.2	10.0	45.2	45.7	51.5	47.2	
S	13.7	22.1	2.3	*	*	.0	38.1	8.9	42.3	37.4	34.6	34.4	
SW	2.7	1.7	.1	.0	.0	.0	4.5	6.4	5.0	4.6	3.4	4.8	
W	.9	.2	*	.0	.0	.0	1.0	4.9	1.0	1.2	.6	1.3	
NW	.6	.2	*	.0	.0	.0	.7	5.4	.5	1.1	.6	.6	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	4.5	.0	.0	.0	.0	.0	4.5	.0	3.5	3.8	4.7	3.6	
TOT OBS						30897			6665	9534	6347	8351	
TOT PCT	37.0	55.5	7.3	.2	*		100.0		100.0	100.0	100.0	100.0	

PERIOD: (PRIMARY) 1913-1976
(OVER-ALL) 1855-1976

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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	WIND SPEED (KNOTS)						MEAN	PCT FREQ	TOTAL OBS
		1-3	4-10	11-21	22-33	34-47	48+			
0000Z	3.5	7.9	50.2	30.7	1.6	.1	.0	9.1	100.0	6665
0600Z	5.8	10.2	55.8	27.1	1.3	.1	.0	8.4	100.0	9534
1200Z	4.7	9.9	53.8	30.3	1.2	.1	.0	8.8	100.0	6347
1800Z	3.6	8.4	55.4	30.6	1.4	.1	.0	9.0	100.0	8351
TOT								8.8		30897
PCT	4.5	9.3	55.3	29.5	1.4	.1	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS) BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8-10	TOTAL OBS	MEAN CLOUD COVER
N	.0	.0	.1	.1	5.8	5.8
NE	.1	.1	.1	.1	5.4	5.4
E	.3	.3	.6	1.0	5.0	5.0
SE	7.7	5.9	13.2	22.2	5.0	5.0
S	8.4	5.6	10.5	17.3	5.5	5.5
SW	.7	.5	.7	1.2	5.3	5.3
W	.1	.1	.1	.2	4.7	4.7
NW	.1	.0	.1	.1	5.4	5.4
VAR	.0	.0	.0	.0	5.0	5.0
CALM	.6	.2	.6	1.3	5.6	5.6
TOT OBS					11064	5.7
TOT PCT	17.9	12.7	25.9	43.5	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/R) AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

	000	100	300	500	1000	2000	3500	5000	6500	8000+	NH <5/8 ANY HGT	TOTAL OBS
	149	299	599	999	1999	3499	4999	6499	7999			
N	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1	
NE	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.2	
E	.0	.0	.1	.3	.6	.2	.1	.0	.0	.0	.9	
SE	.3	.4	1.4	7.3	12.9	5.3	1.6	.4	.2	.4	18.8	
S	.3	.2	1.1	5.5	9.3	4.1	1.3	.4	.2	.5	18.9	
SW	.0	.0	.1	.3	.7	.3	.1	.0	.0	.0	1.4	
W	.0	.0	.0	.1	.2	.0	.0	.0	.0	.0	.2	
NW	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.1	.0	.1	.3	.5	.3	.1	.1	.0	.0	1.1	
TOT OBS											11064	
TOT PCT	.7	.7	2.7	13.9	24.3	10.4	3.1	.9	.5	1.1	41.7	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE OF CEILING HEIGHT (NH >4/R) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)							
	>10	>5	>2	>1	>1/2	>1/4	>50YD	>0
>4500	1.0	1.4	1.6	1.6	1.6	1.6	1.6	1.6
>5000	1.7	2.2	2.4	2.4	2.4	2.4	2.4	2.4
>7500	4.2	5.3	5.5	5.5	5.5	5.5	5.5	5.5
>10000	12.1	15.3	15.8	15.8	15.9	15.9	15.9	15.9
>1000	30.6	38.8	40.1	40.2	40.2	40.2	40.2	40.2
>500	40.0	52.1	54.0	54.1	54.2	54.2	54.2	54.2
>300	41.5	54.5	56.8	56.9	56.9	56.9	56.9	56.9
>150	41.8	55.1	57.4	57.5	57.6	57.6	57.6	57.6
>0	41.9	55.3	57.8	57.9	58.0	58.1	58.3	58.3

TOTAL NUMBER OF OBS: 11191

PCT FREQ NH <5/8: 41.7

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	TOTAL OBS
11.5	8.0	8.5	7.3	5.8	4.7	7.3	9.5	37.0	12132

PERIOD: (PRIMARY) 1913-1976
(OVER-ALL) 1855-1976

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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	*	*	
	NO PCP	.0	*	*	.2	.2	*	.0	.0	.0	.1	.5	
	TOT %	.0	*	*	.2	.2	*	.0	.0	.0	.1	.5	
1/2<1	PCP	.0	.0	.0	*	*	*	.0	.0	.0	.0	.1	
	NO PCP	*	*	*	.6	.9	.1	.0	*	.0	*	1.5	
	TOT %	*	*	*	.6	1.0	.1	.0	*	.0	*	1.6	
1<2	PCP	.0	.0	*	*	*	.0	.0	.0	.0	.0	.1	
	NO PCP	.0	*	*	.1	.1	*	*	.0	.0	*	.3	
	TOT %	.0	*	*	.1	.1	*	*	.0	.0	*	.4	
2<5	PCP	.0	.0	*	.1	.1	*	*	.0	.0	*	.2	
	NO PCP	*	*	.1	1.1	1.4	.2	*	.0	.0	.2	3.1	
	TOT %	*	*	.1	1.2	1.5	.2	*	.0	.0	.3	3.3	
5<10	PCP	*	*	*	.6	.3	*	.0	*	.0	*	.8	
	NO PCP	.1	.1	.4	4.0	9.1	1.0	.2	.1	.0	1.0	21.2	
	TOT %	.1	.2	.5	4.6	9.4	1.1	.2	.1	.0	1.0	22.1	
10+	PCP	.0	*	*	.2	.1	.0	.0	.0	.0	*	.3	
	NO PCP	.2	.2	1.7	30.4	30.0	2.2	.4	.2	.0	1.6	71.8	
	TOT %	.2	.2	1.7	30.6	30.0	2.2	.4	.2	.0	1.6	72.1	
TOT OBS													15097
TOT PCT		.3	.4	2.3	40.4	42.3	3.6	.7	.4	.0	3.0	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.1	*	*	.0	.0	.0	.2	.3	
	4-10	.0	*	*	.2	.2	*	.0	.0	.0		.4	
	11-21	.0	.0	*	*	*	.0	.0	.0	.0		*	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	TOT %	.0	*	*	.2	.3	*	.0	.0	.0	.2	.7	
1/2<1	0-3	*	*	*	.1	.3	*	.0	*	.0	*	.5	
	4-10	*	.0	*	.2	.5	.1	*	*	.0		.8	
	11-21	.0	*	.0	.1	*	.0	.0	.0	.0		.1	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	TOT %	*	*	*	.4	.8	.1	*	*	.0	*	1.4	
1<2	0-3	.0	.0	.0	*	*	.0	.0	.0	.0	.1	.1	
	4-10	.0	*	*	.1	.1	*	.0	.0	.0		.3	
	11-21	.0	*	*	*	*	.0	.0	.0	.0		.1	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	TOT %	.0	*	*	.2	.1	*	*	.0	.0	.1	.4	
2<5	0-3	.0	*	*	.1	.1	*	*	*	.0	.3	.7	
	4-10	*	*	.1	.8	1.0	.1	*	*	.0		2.0	
	11-21	.0	*	*	.3	.4	*	*	.0	.0		.7	
	22+	.0	.0	*	*	*	.0	.0	.0	.0		.1	
	TOT %	*	*	.1	1.2	1.5	.2	*	*	.0	.3	3.5	
5<10	0-3	.1	*	.1	.6	.8	.2	.1	.1	.0	1.1	3.1	
	4-10	.1	.1	.2	4.8	5.4	.8	.1	.1	.0		11.6	
	11-21	*	*	.1	3.5	2.7	.1	*	*	.0		6.5	
	22+	.0	*	*	.3	.1	*	.0	.0	.0		.4	
	TOT %	.1	.1	.4	9.1	9.2	1.1	.2	.2	.0	1.1	21.6	
10+	0-3	.1	.1	.2	1.2	2.0	.5	.2	.1	.0	2.3	6.6	
	4-10	.1	.1	.9	17.4	17.9	1.8	.3	.2	.0		38.9	
	11-21	*	*	.5	14.8	10.2	.3	*	*	.0		25.9	
	22+	.0	.0	*	.6	.3	*	.0	.0	.0		1.0	
	TOT %	.2	.2	1.6	34.1	30.5	2.7	.5	.2	.0	2.3	72.3	
TOT OBS													17980
TOT PCT		.3	.4	2.2	45.2	42.4	4.1	.8	.5	.0	4.0	100.0	

PERIOD: (PRIMARY) 1973-1978
(OVER-ALL) 1854-1978

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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET) NH >4/8) AND
OCCURRENCE OF NH <5/8 BY HOUR

HOURL (GMT)	000 149	150 299	300 599	400 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL OBS	NH <5/8 ANY HGT	TOTAL OBS
00003	.6	.7	1.8	11.8	20.3	8.9	3.0	.6	.6	.9	48.8	51.2	2866
06009	.5	.7	2.5	12.7	23.7	11.0	3.5	.7	.6	1.2	50.9	43.1	2728
12015	1.3	.8	4.2	17.0	28.2	11.1	3.4	1.2	.5	1.1	68.8	31.2	3117
18021	.5	.5	2.1	12.8	22.9	9.5	2.5	.8	.2	1.2	52.9	47.1	2813
TOT													11524
PCT	.7	.7	2.7	13.7	23.9	10.1	3.1	.8	.5	1.1	57.2	42.8	100.0

TABLE 11

PERCENT FREQUENCY VSHY (NH) BY HOUR

HOURL (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.3	.9	.5	3.4	21.2	73.6	4314
06009	.9	1.0	.5	3.1	22.7	71.1	5069
12015	1.3	1.4	.7	4.5	22.4	69.7	4383
18021	.5	2.0	.3	3.4	20.6	73.1	4527
TOT							18293
PCT	.8	1.5	.5	3.6	21.8	71.9	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSHY (NH) AND/OR
CEILING HGT (FEET) NH >4/8) BY HOUR

HOURL (GMT)	<150 <5000	<600 <1	<1000 <5	1000+ AND 5+	NH <5/8 AND 5+	TOTAL OBS
00003	.4	3.1	17.5	33.8	48.7	2754
06009	.6	3.9	18.5	40.2	41.3	2561
12015	1.3	6.6	26.6	43.9	29.5	3059
18021	.6	3.3	18.7	36.8	44.5	2717
TOT						11191
PCT	.7	4.3	20.5	38.8	40.7	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
85/89	.0	.0	.0	.1	.1	.1	.1	.1	.1	.1
80/84	.0	.0	.1	.1	.3	.9	.3	.1	1.8	.1
75/79	.0	.0	.1	.1	.8	4.1	3.7	1.4	10.3	.3
70/74	.0	.0	.1	1.1	4.7	10.1	7.4	.1	23.3	.7
65/69	.0	.0	.1	1.7	6.2	11.4	11.3	.1	30.4	.9
60/64	.0	.0	.1	.1	3.1	15.3	9.8	.1	30.7	.9
55/59	.0	.0	.0	.0	.1	1.4	1.9	.1	3.4	.1
50/54	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOTAL									13210	100.0
PCT	.0	.0	.1	.3	3.6	21.0	43.2	31.9		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.0	.0	.1	.1	.1	.0	.0	.0	.0	.0
.1	.1	.3	5.7	3.6	.4	.1	.1	.0	.2
.1	.1	.6	12.0	9.1	.7	.1	.1	.0	.6
.1	.1	.7	14.0	12.9	1.1	.3	.1	.0	1.0
.1	.1	.6	14.5	12.7	1.1	.3	.2	.0	1.1
.1	.1	.1	1.4	1.6	.2	.1	.1	.0	.1
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
.3	.5	2.4	48.7	40.4	3.5	.3	.4	.0	3.0

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOURL (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	86	75	73	67	63	61	52	67.3	6701
06009	84	73	71	65	61	59	50	65.4	9664
12015	90	75	72	68	62	60	50	68.8	6423
18021	89	80	76	70	64	62	52	69.8	7813
TOT	90	77	74	67	62	60	50	67.2	30601

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOURL (GMT)	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	.1	2.3	19.7	46.9	31.0	85	3322		
06009	.0	.1	1.1	14.2	42.9	41.7	87	3410		
12015	.0	.1	1.7	16.8	43.2	38.2	86	3330		
18021	.0	1.0	9.7	33.7	39.2	16.3	80	3232		
TOT	0	42	484	2829	5792	4353	85	13500		

PERIOD: (PRIMARY) 1913-1978
(OVER-ALL) 1855-1978

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TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	49 52	53 56	57 60	61 64	65 68	69 72	73 76	77 80	81 84	85 88	TOT FOG	WU FOG
20/22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2	.0
17/19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	8	.0
14/16	.0	.0	.0	.0	.0	.0	.1	.1	.0	.0	28	.0
11/13	.0	.0	.0	.1	.1	.2	.2	.1	.2	.0	125	.0
9/11	.0	.0	.0	.0	.1	.3	.3	.2	.1	.0	171	.1
7/9	.0	.0	.0	.0	.1	.6	.7	.5	.4	.2	363	.2
6	.0	.0	.1	.1	.6	.5	.3	.2	.1	.0	282	.2
5	.0	.0	.0	.4	.9	1.0	.7	.4	.1	.0	492	.3
4	.0	.1	.7	1.4	1.3	.7	.4	.1	.0	.0	860	.3
3	.0	.0	1.2	2.0	1.3	.9	.4	.1	.0	.0	845	.4
2	.0	.0	.4	2.7	3.4	2.0	1.1	.7	.2	.0	1466	.8
1	.0	.0	.8	3.6	3.4	2.5	1.7	.5	.0	.0	1791	.7
0	.0	.0	1.6	5.3	4.3	3.1	1.8	.9	.1	.0	2374	.7
-1	.0	.0	1.3	4.1	2.9	2.5	1.7	.5	.1	.0	1844	.4
-2	.0	.0	1.0	3.0	2.2	1.7	1.4	.5	.0	.0	1370	.2
-3	.0	.0	.6	1.9	1.4	1.3	.9	.2	.0	.0	892	.1
-4	.0	.0	.5	1.2	1.1	.7	.5	.1	.0	.0	574	.1
-5	.0	.0	.2	.8	.5	.0	.4	.2	.0	.0	367	.0
-6	.0	.0	.1	.4	.3	.2	.1	.0	.0	.0	193	.0
-7/-8	.0	.0	.1	.3	.2	.1	.0	.0	.0	.0	130	.0
-9/-10	.0	.0	.0	.1	.1	.0	.0	.0	.0	.0	24	.0
-11/-12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3	.0
-14/-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1	.0
TOTAL											13955	
PCT	.1	6.9	26.0	25.9	20.2	13.6	5.9	1.3	.2		100.0	95.4

PERIOD: (OVER-ALL) 1943-1978

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
41	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.1
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.2
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.1	.1	.1	.1	.1	.1	.2	.1	.1	.1	.1	.1	.1	.4

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
41	.1	.2	.0	.0	.0	.0	.4	.3	2.0	.2	.0	.0	.0	2.5
1-2	.0	.8	.0	.0	.0	.0	1.1	.7	11.4	5.2	.0	.0	.0	17.3
3-4	.0	.3	.0	.0	.0	.0	.7	.1	6.8	11.0	.3	.0	.0	18.2
5-6	.0	.0	.0	.0	.0	.0	.3	.0	1.5	7.3	.4	.0	.0	9.2
7	.0	.0	.1	.0	.0	.0	.1	.0	.3	2.2	.4	.0	.0	2.9
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.4	.1	.0	.0	.6
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.2	.0	.0	.2
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.1
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.2	1.4	.9	.0	.0	.0	2.5	1.2	21.9	26.4	1.5	.0	.0	51.1

PERIOD: (OVER-ALL) 1963-1978

ANNUAL

AREA 0032 LIMA

TABLE 18 (CONT)

11.35 78.3W

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.7	2.4	.2	.0	.0	.0	3.2	.2	.4	.1	.0	.0	.0	.6
1-2	.8	11.8	3.5	.0	.0	.0	16.0	.2	1.0	.2	.0	.0	.0	1.4
3-4	.2	5.7	6.9	.1	.0	.0	12.9	*	*	.2	*	.0	.0	.6
5-6	*	1.1	4.2	.2	.0	.0	5.5	.0	.1	.1	*	.0	.0	.1
7	.0	.3	1.1	.2	.0	.0	1.6	.0	.0	*	.0	.0	.0	*
8-9	.0	.1	.4	.1	.0	.0	.5	.0	.0	.0	.0	.0	.0	.0
10-11	.0	*	*	*	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0
12	.0	*	*	*	.0	.0	*	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	*	.0	.0	.0	*	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.7	21.4	16.3	.5	*	.0	39.9	.4	1.8	.6	*	.0	.0	2.8

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.1	*	.0	.0	.0	.0	.1	*	*	.0	.0	.0	.0	*	
1-2	*	.1	*	.0	.0	.0	.2	*	*	.0	.0	.0	.0	.1	
3-4	.0	*	.1	.0	.0	.0	.2	.0	*	.0	.0	.0	.0	*	
5-6	.0	.0	*	.0	.0	.0	.0	.0	.0	*	.0	.0	.0	*	
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
12	.0	*	.0	.0	.0	.0	*	.0	*	.0	.0	.0	.0	*	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.1	.2	.1	.0	.0	.0	.4	*	.1	*	.0	.0	.0	.1	97.3

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT
<1	4.7	5.1	.4	.0	.0	.0	10.1	DBS
1-2	2.1	25.1	9.0	.0	.0	.0	36.2	
3-4	.3	13.2	18.7	.4	.0	.0	32.6	
5-6	.1	2.7	11.7	.7	.0	.0	15.1	
7	*	.5	3.4	.6	.0	.0	4.5	
8-9	.0	.1	.8	.2	.0	.0	1.1	
10-11	.0	*	.1	.2	.0	.0	.3	
12	.0	*	*	.1	*	.0	.1	
13-16	.0	.0	*	.0	.0	.0	*	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	7.1	46.7	44.0	2.1	*	.0	100.0	3790

PERIOD: (OVER-ALL) 1950-1977

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<5	2.2	9.2	17.2	7.7	1.8	.5	.2	.1	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3783
6-7	.1	1.7	8.4	10.6	4.9	1.5	.7	.3	.1	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2740
8-9	*	.5	2.8	4.0	4.2	1.6	.9	.3	.3	.1	*	*	.0	.0	.0	.0	.0	.0	.0	.0	1421
10-11	.0	.7	1.3	1.5	1.4	.9	.5	.2	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	655
12-13	.0	.0	.8	.6	.6	.4	.2	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	274
14-15	.0	.0	.0	.4	.3	.2	.1	*	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	96
16-17	1.8	1.5	2.1	1.1	.7	.2	.1	*	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	727
TOTAL																					9696
PCT	4.1	13.6	32.7	25.9	13.9	5.3	2.7	1.0	.7	.2	*	*	.0	.0	.0	.0	.0	.0	.0	.0	100.0

PERIOD: (PRIMARY) 1913-1978
(OVER-ALL) 1855-1978

TABLE 20

AREA 0032 LIMA
11.35 78.3W

PERCENT FREQUENCY OF OCCURRENCE OF SEA TEMP (DEG F) BY MONTH															
SEA TMP DEG F	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANN	PCT	
96+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0	
95/96	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0	
93/94	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0	
91/92	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0	
89/90	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0	
87/88	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0	
85/86	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	5	*	
83/84	*	.3	.4	.7	.0	.0	.0	.0	.0	.0	.0	.0	38	.1	
81/82	.5	1.2	3.0	1.2	.4	.1	.0	.0	.0	.0	*	.1	179	.6	
79/80	1.0	4.7	7.1	2.3	1.0	.1	.0	.0	.0	*	.0	.1	454	1.4	
77/78	4.6	12.6	11.8	5.4	2.2	.1	.0	.0	.0	.0	*	.1	1015	3.1	
75/76	10.9	12.6	10.1	6.3	4.5	1.0	.1	.5	.0	*	*	*	1272	3.9	
73/74	17.5	14.1	11.0	7.7	7.7	2.8	.8	.3	.0	.2	.5	4.6	1819	5.6	
71/72	19.7	13.3	13.5	7.3	9.8	6.3	1.9	.9	.1	.3	1.7	15.3	2274	7.0	
69/70	19.7	12.6	13.9	10.7	11.4	10.4	4.3	2.5	1.0	2.2	7.6	14.9	2854	8.8	
67/68	13.3	13.2	13.4	15.4	11.3	12.6	11.0	5.2	4.4	6.7	16.7	16.4	3814	11.7	
65/66	12.2	8.9	9.0	19.0	14.8	15.4	19.1	12.6	11.7	13.8	20.3	16.9	4719	14.5	
63/64	8.0	4.2	4.6	16.5	20.3	18.7	25.9	27.3	22.2	25.4	24.9	18.8	5862	18.0	
61/62	2.6	1.5	1.4	5.1	11.8	15.8	20.7	26.0	24.3	23.5	16.8	8.9	4274	13.1	
59/60	1.6	.6	.5	1.6	4.2	14.8	12.6	19.2	24.6	20.6	8.9	3.1	3016	9.3	
57/58	.3	.2	.1	.4	.5	1.6	2.8	3.8	10.0	6.0	2.1	.3	757	2.3	
55/56	*	.1	.1	.1	.1	.2	.4	1.1	1.7	.5	.3	.1	124	.4	
53/54	.0	.0	.1	*	.1	*	.1	.4	.1	.4	*	.0	35	.1	
51/52	.0	.0	.0	*	.0	.0	.2	.1	.0	.2	*	.0	15	*	
49/50	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	3	*	
47/48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0	
45/46	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0	
43/44	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0	
41/42	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0	
39/40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0	
37/38	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0	
35/36	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0	
33/34	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0	
31/32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0	
29/30	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0	
27/28	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0	
<27	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0	
TOTAL	2782	2661	2948	2849	2406	2492	2902	2680	2720	2549	3074	2687	32530	100.0	
MEAN	70.0	71.4	71.7	68.6	67.1	64.9	63.6	62.6	61.7	62.4	64.4	66.8	66.2		

TABLE 21

PRESSURE (MB)

AVERAGE BY HOUR (GMT)											TOTAL OBS
MO	0000	0300	0600	0900	1200	1500	1800	2100	MEAN		
JAN	1012	1012	1012	1011	1013	1013	1012	1010	1012		1721
FEB	1011	1012	1012	1011	1012	1013	1012	1011	1012		1605
MAR	1011	1012	1012	1011	1012	1013	1012	1010	1011		1816
APR	1012	1013	1012	1011	1013	1013	1012	1011	1012		1590
MAY	1013	1013	1013	1013	1014	1014	1014	1012	1014		1477
JUN	1014	1013	1013	1014	1015	1016	1013	1013	1015		1608
JUL	1014	1013	1013	1013	1015	1015	1013	1013	1015		1788
AUG	1015	1013	1013	1013	1015	1016	1013	1013	1015		1647
SEP	1014	1014	1013	1014	1013	1017	1013	1014	1015		1574
OCT	1014	1013	1013	1014	1015	1015	1013	1013	1015		1480
NOV	1014	1013	1014	1013	1014	1013	1014	1012	1014		1664
DEC	1013	1013	1013	1012	1014	1014	1013	1011	1013		1502
ANN	1013	1014	1014	1013	1014	1015	1014	1012	1013		19472
OBS	4167	321	4185	994	4240	386	4409	776			

PERCENTILES

MO	MIN	1%	5%	25%	50%	75%	95%	99%	MAX
JAN	1001	1007	1009	1011	1012	1013	1015	1016	1018
FEB	998	1006	1008	1010	1012	1013	1015	1017	1022
MAR	1003	1005	1008	1010	1011	1013	1015	1017	1021
APR	1004	1006	1009	1011	1012	1013	1015	1017	1020
MAY	1000	1009	1010	1012	1014	1015	1017	1019	1022
JUN	1002	1010	1011	1013	1015	1016	1018	1020	1023
JUL	1002	1009	1011	1013	1015	1016	1018	1020	1023
AUG	1000	1010	1011	1013	1015	1016	1018	1021	1024
SEP	1001	1009	1011	1014	1015	1016	1018	1021	1023
OCT	1007	1009	1012	1013	1015	1016	1018	1019	1021
NOV	1001	1008	1010	1013	1014	1015	1018	1020	1023
DEC	1000	1008	1010	1012	1013	1015	1017	1019	1023

PERIOD: (PRIMARY) 1929-1978
(OVER-ALL) 1870-1978

TABLE 1

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PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

PRECIPITATION TYPE										OTHER WEATHER PHENOMENA					
WND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THOR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST SNOW	NO SIG WEA
N	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	11.3	6.5	.0	.0	82.3
NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	15.6	.0	.0	.0	84.4
E	.0	.0	1.3	.0	.0	.0	.0	1.3	.0	2.5	7.5	.0	2.5	.0	86.3
SE	.0	.1	.1	.0	.0	.0	.0	.2	.2	.5	4.4	.3	1.9	.0	92.6
S	.1	.1	.0	.0	.0	.0	.0	.2	.4	.5	3.4	.1	3.3	.0	92.1
SW	.2	.0	.8	.0	.0	.0	.0	1.0	1.2	2.2	1.6	.0	3.0	.0	91.1
W	.0	.0	.0	.0	.0	.0	.0	.0	.0	9.1	.0	.0	.0	.0	90.9
NW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	19.0	.0	81.0
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	1.2	.0	15.5	.0	4.8	.0	78.6
TOT PCT	.1	.1	.1	.0	.0	.0	.0	.3	.4	.7	4.5	.2	2.9	.0	91.0
TOT OBS:	1423														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST SNOW	NO SIG WEA
00003	.0	.0	.3	.0	.0	.0	.0	.3	.0	.3	1.9	.0	3.2	.0	94.4
06009	.0	.0	.0	.0	.0	.0	.0	.0	.9	2.0	4.9	.0	2.9	.0	89.2
12015	.3	.3	.3	.0	.0	.0	.0	.8	.6	.3	7.4	.8	3.3	.0	86.8
18021	.0	.0	.0	.0	.0	.0	.0	.0	.3	.3	4.3	.0	2.2	.0	93.0
TOT PCT	.1	.1	.1	.0	.0	.0	.0	.3	.4	.7	4.6	.2	2.9	.0	90.9
TOT OBS:	1453														

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)						TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	48+				00	03	06	09	12	15	18	21
N	.5	.3	.1	.0	.0	.0		.9	3.8	.4	.0	.9	1.4	1.5	.0	.9	.0
NE	.2	.3	.0	.0	.0	.0		.6	4.9	.1	3.3	.5	1.0	.7	.0	.9	.0
E	.8	2.4	.1	.0	.0	.0		3.3	5.5	1.0	3.3	1.7	4.3	5.1	4.3	5.1	2.1
SE	4.1	24.0	5.8	.0	.0	.0		33.9	7.7	27.9	45.8	32.4	34.5	38.1	46.6	37.5	25.8
S	5.9	28.8	9.5	.1	.0	.0		44.4	7.9	33.7	34.2	44.1	37.4	36.8	31.0	43.1	35.7
SW	1.0	5.7	2.4	.0	.0	.0		9.1	8.4	12.9	6.7	10.7	9.2	5.5	7.8	6.5	13.4
W	.2	.6	.1	.0	.0	.0		.9	6.3	1.9	.0	.5	.7	.4	.0	.7	1.5
NW	.2	.2	.0	.0	.0	.0		.4	5.4	.4	3.3	.8	.0	.2	.0	.3	.0
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	6.6							6.6	.0	1.9	3.3	8.4	11.6	11.6	10.3	5.0	1.5
TOT OBS	433	1383	400	3	0	0	2219		7.2	483	30	438	147	455	29	505	132
TOT PCT	19.5	62.3	18.0	.1	.0	.0		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)					TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)				
	0-6	7-16	17-27	28-40	41+				00	03	06	12	18
N	.8	.1	.0	.0	.0		.9	3.8	.3	1.0	1.4	.7	
NE	.5	.1	.0	.0	.0		.6	4.9	.2	.6	.6	.7	
E	2.4	.9	.0	.0	.0		3.3	5.5	1.2	2.4	5.1	4.5	
SE	14.7	18.8	.4	.0	.0		33.9	7.7	28.9	32.9	38.6	35.0	
S	19.1	24.2	1.0	.0	.0		44.4	7.9	32.5	42.4	36.5	45.7	
SW	3.5	5.2	.4	.0	.0		9.1	8.4	12.5	10.3	5.7	8.0	
W	.5	.3	.0	.0	.0		.9	6.3	1.8	.6	.4	.9	
NW	.2	.2	.0	.0	.0		.4	5.4	.5	.6	.2	.2	
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	
CALM	6.6						6.6	.0	1.9	9.2	11.6	4.2	
TOT OBS	1072	1105	41	1	0	2219		7.2	513	585	484	637	
TOT PCT	48.3	49.8	1.8	.0	.0		100.0		100.0	100.0	100.0	100.0	

PERIOD: (PRIMARY) 1929-1978
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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)				48+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47					
00003	1.9	9.9	64.7	23.0	.4	.0	.0	.0	8.1	100.0	513
06009	9.2	13.2	60.2	17.4	.0	.0	.0	.0	6.8	100.0	585
12015	11.6	15.5	57.4	13.3	.2	.0	.0	.0	6.6	100.0	484
18021	4.2	13.0	66.1	16.6	.0	.0	.0	.0	7.3	100.0	627
TOT	147	286	1383	400	3	0	0	0	7.2		2219
PCT	6.6	12.9	62.3	18.0	.1	.0	.0	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	.4	.0	.4	.2		4.7
NE	.3	.0	.1	.1		3.7
E	.7	.3	.3	.4		4.3
SE	9.4	5.3	12.5	6.5		4.7
S	13.8	7.4	16.1	9.8		4.6
SW	2.6	1.2	2.8	1.3		4.3
W	.0	.1	.1	.2		6.3
NW	.0	.0	.1	.2		7.2
VAR	.0	.0	.0	.0		.0
CALM	1.8	1.5	1.8	2.1		4.7
TOT OBS	307	167	363	221	1058	4.6
TOT PCT	29.0	15.8	34.3	20.9	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8)
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH <5/8 ANY HGT	TOTAL OBS
N	.0	.0	.0	.2	.4	.0	.1	.0	.0	.0	.4	
NE	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	
E	.2	.0	.0	.0	.1	.3	.0	.1	.0	.0	.1	
SE	.1	.1	.4	2.9	3.7	2.8	.9	.6	.6	.9	20.6	
S	.4	.1	.4	4.2	5.1	3.2	2.1	.8	.7	.6	29.5	
SW	.0	.0	.0	.3	.7	.5	.3	.1	.1	.1	5.8	
W	.0	.0	.0	.0	.0	.1	.0	.0	.0	.2	.1	
NW	.0	.0	.0	.1	.1	.1	.0	.0	.0	.0	.0	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.4	.0	.2	.3	.9	.6	.4	.0	.1	.2	4.3	
TOT OBS	13	2	11	84	116	80	40	17	13	22	638	1058
TOT PCT	1.2	.2	1.0	7.9	11.0	7.6	3.8	1.6	1.4	2.1	62.2	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE
OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)							
	= OR >10	= OR >5	= OR >2	= OR >1	= OR >1/2	= OR >1/4	= OR >3000	= OR >0
= OR >6500	2.5	3.4	3.5	3.6	3.6	3.6	3.7	3.7
= OR >5000	3.6	4.8	4.9	5.0	5.0	5.0	5.1	5.1
= OR >3500	6.8	8.4	8.6	8.6	8.7	8.7	8.8	8.8
= OR >2000	12.4	15.5	16.0	16.1	16.2	16.3	16.4	16.4
= OR >1000	20.6	26.2	27.0	27.0	27.1	27.2	27.4	27.4
= OR >600	25.9	33.7	34.7	34.9	34.9	35.2	35.4	35.4
= OR >300	26.4	34.7	35.7	35.9	36.0	36.2	36.4	36.4
= OR >150	26.5	34.8	35.9	36.1	36.2	36.4	36.6	36.6
= OR > 0	26.7	35.0	36.2	36.4	36.6	37.0	37.6	37.8
TOTAL	287	377	390	392	394	398	405	407

TOTAL NUMBER OF OBS 1076

PCT FREQ NH <5/8 62.2

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

	0	1	2	3	4	5	6	7	8 OBSCD	TOTAL OBS
	19.6	12.7	12.2	9.7	7.8	5.8	8.5	9.0	13.9	1159

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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.1	.1	.0	.0	*	.0	.0	.0	.5	1.9	
	TOT %	.0	.1	.1	.0	.0	*	.0	.0	.0	.5	1.9	
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1	.1	
	TOT %	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1	.1	
1<2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.1	.2	.0	.0	.0	.0	.1	.4	
	TOT %	.0	.0	.0	.1	.2	.0	.0	.0	.0	.1	.4	
2<5	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.1	.0	.2	.4	.4	.2	.0	.0	.0	.4	1.7	
	TOT %	.1	.0	.2	.4	.4	.2	.0	.0	.0	.4	1.7	
5<10	PCP	.0	.0	*	*	.1	*	.0	.0	.0	.0	.1	
	NO PCP	.3	.4	1.1	6.1	9.2	1.8	.3	.7	.0	1.6	21.0	
	TOT %	.3	.4	1.1	6.2	9.3	1.8	.3	.7	.0	1.6	21.1	
10+	PCP	.0	.0	.0	*	.1	.1	.0	.0	.0	.0	.1	
	NO PCP	.7	.1	1.4	25.9	35.9	6.9	.3	.1	.0	3.3	74.7	
	TOT %	.7	.1	1.4	25.9	35.9	6.9	.3	.1	.0	3.3	74.8	
TOT OBS													1403
TOT PCT		1.1	.6	2.8	33.2	46.5	9.0	.6	.4	.0	5.9	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	*	.1	.4	*	.0	.0	.0	.7	1.2	
	4-10	.0	.1	.1	.8	.3	.2	.0	.0	.0	.0	1.7	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.1	.2	1.0	.9	.2	.0	.0	.0	.7	3.0	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1	
	4-10	.0	.0	.0	.1	.1	.0	.0	.0	.0	.0	.1	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.1	.1	.0	.0	.0	.0	.1	.2	
1<2	0-3	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1	.2	
	4-10	.0	.0	.0	.1	.1	.0	.0	.0	.0	.0	.2	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.1	.2	.0	.0	.0	.0	.1	.4	
2<5	0-3	.0	.0	.0	.2	.3	*	.0	.0	.0	.4	.8	
	4-10	.1	.0	.1	.4	.4	.1	.0	.0	.0	.0	1.1	
	11-21	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.1	.0	.1	.6	.6	.2	.0	.0	.0	.4	2.0	
5<10	0-3	.2	.1	.1	.7	1.1	.3	.1	.1	.0	2.0	4.6	
	4-10	*	.2	.9	3.9	5.7	1.1	.2	.1	.0	.0	12.1	
	11-21	.0	.0	.0	1.4	1.9	.3	.0	.0	.0	.0	3.6	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.2	.3	1.0	6.0	8.7	1.7	.2	.2	.0	2.0	20.3	
10+	0-3	.4	*	.4	2.4	4.6	.8	*	.0	.0	3.3	11.9	
	4-10	.2	.1	1.1	17.4	21.8	5.1	.3	.2	.0	.0	46.2	
	11-21	.1	*	.1	4.5	8.9	2.1	.1	.0	.0	.0	19.9	
	22+	.0	.0	.0	.0	.1	*	.0	.0	.0	.0	.1	
	TOT %	.7	.1	1.5	24.4	39.4	8.0	.4	.2	.0	3.3	74.1	
TOT OBS													1683
TOT PCT		1.0	.5	2.9	32.1	45.9	10.1	.7	.4	.0	6.5	100.0	

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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NH >4/8) AND
OCCURRENCE OF NH <5/8 BY HOUR

HOURL (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00003	.6	.0	.0	6.0	13.0	7.0	3.2	1.0	1.0	1.9	33.7	66.3	315
06009	3.3	.4	2.1	7.0	14.0	7.9	4.5	1.2	2.1	2.5	45.0	55.0	242
12015	1.3	.3	1.3	12.8	8.1	8.1	3.7	2.4	1.3	3.7	43.1	56.9	297
18021	.0	.0	.7	4.4	7.3	5.9	2.9	1.5	1.1	.7	24.5	75.5	273
TOT	14	2	11	46	119	81	40	17	15	25	410	717	1127
PCT	1.2	.2	1.0	7.6	10.6	7.2	3.5	1.5	1.3	2.2	36.4	63.6	100.0

TABLE 11

PERCENT FREQUENCY VS BY (NH) BY HOUR

HOURL (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	1.4	.0	.0	1.2	16.5	80.9	430
06009	3.6	.2	.7	2.7	25.7	67.2	448
12015	4.9	.7	.5	3.2	20.1	70.5	407
18021	2.3	.0	.5	.9	19.4	76.9	428
TOT	52	4	7	34	351	1265	1713
PCT	3.0	.2	.4	2.0	20.5	73.8	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VS BY (NH) AND/OR
CEILING HGT (FEET, NH >4/8), BY HOUR

HOURL (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND 5+	NH <5/8 AND 5+	TOTAL OBS
00003	.7	1.0	8.3	27.2	64.6	302
06009	3.1	6.6	15.9	32.7	51.3	226
12015	1.4	4.6	19.8	26.1	54.1	283
18021	.4	1.5	6.4	19.6	74.0	265
TOT	14	35	134	282	660	1076
PCT	1.3	3.3	12.5	26.2	61.3	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
90/94	.0	.0	.0	.0	.0	.0	.0	.1	1	.1
85/89	.0	.0	.0	.0	.3	.0	.0	.0	3	.3
80/84	.0	.0	.0	.3	.9	2.4	.7	.7	57	4.9
75/79	.0	.0	.2	.0	.3	6.1	8.2	5.1	232	19.9
70/74	.0	.0	.0	.0	.1	2.5	23.0	28.2	626	53.8
65/69	.0	.0	.0	.0	.0	.2	3.7	15.9	230	19.8
60/64	.0	.0	.0	.0	.0	.0	.3	1.0	15	1.3
TOTAL	0	0	2	3	18	130	418	593	1164	100.0
PCT	.0	.0	.2	.3	1.5	11.2	35.9	50.9		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.0	.0	.0	.0	.0	.1	.0	.0	.0	.0
.0	.1	.1	.0	.1	*	.0	.0	.0	.0
.2	.0	.2	1.9	2.2	*	.0	.0	.0	.4
.4	.1	.3	7.5	8.6	2.0	.2	.1	.0	.9
.3	.1	1.1	17.4	27.7	3.8	.1	.2	.0	2.9
.4	.2	.5	6.3	9.2	1.4	.2	.0	.0	1.5
.0	.0	.0	.3	.6	.0	.0	.0	.0	.3
1.3	.5	2.2	33.4	48.3	7.4	.5	.3	.0	6.1

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOURL (GMT)	MAX	99%	95%	90%	5%	1%	MIN	MEAN	TOTAL OBS
00003	85	81	79	72	67	64	60	72.5	509
06009	82	79	76	70	65	63	62	70.7	587
12015	82	79	77	71	65	63	62	71.3	477
18021	90	86	82	75	69	66	65	75.3	610
TOT	90	83	80	72	66	63	60	72.6	2183

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOURL (GMT)	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	.3	1.0	8.5	41.0	49.2	88	307		
06009	.0	.0	.3	3.8	24.9	71.0	91	293		
12015	.0	.3	.0	4.1	34.5	61.1	90	293		
18021	.0	1.0	4.7	27.8	41.6	24.7	83	299		
TOT	0	5	18	132	425	612	88	1192		

PERIOD: (PRIMARY) 1929-1978
(OVER-ALL) 1870-1978

JANUARY

AREA 0033 PUNTA NEGRA
6.35 81.3W

TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	57 60	61 64	65 68	69 72	73 76	77 80	81 84	83 88	TOT	W FOG	WD FOG
17/19	.0	.0	.0	.0	.0	.0	.2	.0	3	.0	.2
14/16	.0	.0	.0	.1	.0	.1	.2	.1	5	.0	.4
11/13	.0	.0	.0	.2	.4	.4	.5	.2	21	.2	1.4
9/10	.0	.0	.1	.2	.3	.5	.5	.1	24	.0	1.8
7/8	.0	.0	.1	1.4	1.6	1.1	.5	.1	63	.2	4.5
6	.0	.0	.2	.9	1.7	.7	.2	.0	48	.2	3.5
5	.0	.0	.3	1.2	2.0	1.2	.3	.0	66	.2	4.8
4	.0	.1	.7	2.6	2.5	1.7	.1	.0	101	.2	7.4
3	.0	.1	1.6	2.6	2.7	1.4	.2	.0	113	.3	8.3
2	.0	.5	2.0	5.5	3.0	1.7	.2	.1	173	.8	12.3
1	.0	.4	2.3	5.6	3.7	1.1	.1	.0	175	.7	12.6
0	.0	.3	1.9	7.0	5.5	1.0	.1	.0	209	.8	15.1
-1	.0	.1	1.3	3.9	3.0	.8	.0	.0	119	.4	8.6
-2	.1	.2	.6	3.0	2.8	.5	.0	.0	94	.2	6.9
-3	.0	.0	.3	1.3	1.3	.3	.0	.0	42	.1	3.1
-4	.1	.0	.7	.8	.5	.2	.1	.0	31	.0	2.3
-5	.0	.0	.1	.2	.2	.1	.0	.0	8	.0	.6
-6	.0	.0	.3	.5	.2	.0	.0	.0	13	.0	1.0
-7/-8	.0	.0	.2	.2	.0	.1	.0	.0	6	.0	.5
-9/-10	.0	.0	.2	.2	.0	.0	.0	.0	5	.0	.4
-11/-13	.0	.0	.0	.2	.0	.0	.0	.0	2	.0	.2
TOTAL	2	22	169	497	416	168	41	6	1321	5.6	1265
PCT	.2	1.7	12.8	37.6	31.5	12.7	3.1	.5	100.0	4.2	95.8

PERIOD: (OVER-ALL) 1963-1978

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.5	.0	.0	.0	.0	.0	.5	.0	.0	.0	.0	.0	.0	.0
1-2	.2	.2	.0	.0	.0	.0	.4	.0	.4	.0	.0	.0	.0	.4
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.1	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.7	.2	.1	.0	.0	.0	1.1	.1	.4	.0	.0	.0	.0	.5

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.4	.0	.0	.0	.0	.4	.4	2.7	1.0	.0	.0	.0	4.2
1-2	.3	.8	.0	.0	.0	.0	1.1	1.5	14.1	3.7	.0	.0	.0	19.2
3-4	.1	.3	.0	.0	.0	.0	.5	.0	5.5	4.7	.0	.0	.0	10.3
5-6	.0	.1	.0	.0	.0	.0	.1	.0	.2	.6	.0	.0	.0	.5
7	.0	.1	.0	.0	.0	.0	.1	.0	.2	.2	.0	.0	.0	.8
8-9	.0	.0	.0	.0	.0	.0	.0	.2	.2	.0	.0	.0	.0	.4
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.5	1.8	.0	.0	.0	.0	2.3	2.1	29.0	10.3	.0	.0	.0	35.4

PERIOD: (OVER-ALL) 1963-1978

JANUARY

AREA 0033 PUNTA NEGRA
6.35 81.0W

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	2.0	2.3	.1	.0	.0	.0	4.5	.2	.0	.0	.0	.0	.0	.3	
1-2	2.6	17.5	3.5	.0	.0	.0	23.6	.3	2.9	.3	.0	.0	.0	3.7	
3-4	.3	6.6	6.3	.0	.0	.0	13.3	.0	1.1	1.5	.0	.0	.0	2.6	
5-6	.0	.9	3.0	.2	.0	.0	4.1	.0	.0	.5	.0	.0	.0	.5	
7	.0	.2	.4	.1	.0	.0	.8	.0	.0	.3	.0	.0	.0	.3	
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	4.9	27.6	13.4	.3	.0	.0	66.3	.7	4.1	2.6	.0	.0	.0	7.5	

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.2	
1-2	.0	.1	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.4	.0	.0	.0	.0	.4	
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.0	.1	.0	.0	.0	.0	.1	.2	.4	.0	.0	.0	.0	.6	93.8

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT DBS
<1	10.1	5.5	1.1	.0	.0	.0	16.7	
1-2	5.7	35.7	7.4	.0	.0	.0	48.8	
3-4	.8	13.7	12.3	.0	.0	.0	26.8	
5-6	.0	1.3	4.0	.2	.0	.0	5.5	
7	.0	.6	1.1	.2	.0	.0	1.9	
8-9	.2	.2	.0	.0	.0	.0	.4	
10-11	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	16.7	56.9	26.0	.4	.0	.0	100.0	527

PERIOD: (OVER-ALL) 1949-1978

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	4.6	19.4	21.3	4.1	1.0	.1	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	486	3
6-7	.5	2.6	7.6	7.5	1.1	.3	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	191	4
8-9	.1	.9	3.6	2.2	.9	.8	.3	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	87	5
10-11	.0	2.1	1.9	1.6	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	55	3
12-13	.0	.0	1.5	.8	.3	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	27	4
>13	.0	.0	.0	.3	.1	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	5	6
INDET	4.4	3.1	2.0	.6	.8	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	106	2
TOTAL	.92	270	362	164	44	15	7	1	2	0	0	0	0	0	0	0	0	0	0	957	3
PCT	9.6	28.2	37.8	17.1	4.6	1.6	.7	.1	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	

FEBRUARY

PERIOD: (PRIMARY) 1931-1978
(OVER-ALL) 1873-1978

AREA 0033 PUNTA NEGRA
6.35 81.34

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA						
	RAIN	RAIN SHW	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THOR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST SIG WEA
N	.0	.0	.0	.0	.0	.0	.0	.0	.0	12.5	.0	.0	.0	87.5
NE	.0	.0	.0	.0	.0	.0	.0	.0	6.5	.0	.0	.0	.0	93.5
E	1.2	.0	1.2	.0	.0	.0	.0	2.4	2.4	.0	2.4	.0	.0	92.9
SE	.3	.0	.5	.0	.0	.0	.0	.8	.6	.0	1.4	.1	1.0	96.1
S	.6	.3	.1	.0	.0	.0	.0	1.1	.6	.1	1.7	.1	2.9	93.4
SW	.2	1.9	.9	.0	.0	.0	.0	3.1	.0	.2	.0	.0	4.9	91.8
W	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
NW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	4.1	.0	10.2	85.7
TOT PCT	.5	.3	.4	.0	.0	.0	.0	1.1	.7	.2	1.5	.1	2.4	94.0
TOT OBS:	1309													

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA						
	RAIN	RAIN SHW	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THOR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST SIG WEA
0000Z	.3	.0	.3	.0	.0	.0	.0	.6	.0	.0	1.1	.0	1.7	.0
0600Z	.7	1.4	.7	.0	.0	.0	.0	2.7	1.0	.7	2.4	.0	1.0	.0
1201Z	.5	.3	.3	.0	.0	.0	.0	1.1	1.4	.0	3.2	.0	4.1	.0
1802Z	.3	.0	.3	.0	.0	.0	.0	.6	.3	.0	.6	.3	2.8	.0
TOT PCT	.4	.4	.4	.0	.0	.0	.0	1.2	.7	.1	1.8	.1	2.5	.0
TOT OBS:	1383													

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)						
	0-3	4-10	11-21	22-33	34-47	48+					00	03	06	09	12	15	18
N	.4	.5	.1	.0	.0	.0		1.0	5.4		.1	.0	.8	4.1	1.5	.0	1.2
NE	.3	.8	.2	.0	.0	.0		1.3	7.5		.7	2.6	2.0	.7	1.3	.0	2.0
E	.9	3.1	.7	.0	.0	.0		4.7	7.0		1.2	6.3	3.1	6.9	6.5	9.2	7.3
SE	3.5	24.7	6.7	.0	.0	.0		35.0	7.9		28.1	34.9	30.9	38.1	40.0	46.2	39.1
S	4.4	29.6	7.7	.2	.0	.0		41.9	7.9		51.6	40.6	44.3	28.4	38.7	35.0	37.7
SW	1.0	7.1	1.2	.0	.0	.0		9.3	7.1		13.0	7.3	10.7	11.4	5.2	3.5	7.3
W	.4	.7	.1	.0	.0	.0		1.2	6.1		1.8	2.1	.9	.4	.5	4.6	.8
NW	.2	.4	.0	.0	.0	.0		.6	5.7		1.0	.0	.5	.4	.1	.0	.9
VAR	.0	.0	.0	.0	.0	.0		.0	.0		.0	.0	.0	.0	.0	.0	.0
CALM	5.0							5.0	.0		2.5	6.3	6.8	9.7	6.3	1.5	3.8
TOT OBS	331	1383	347	4	0	0	2065		7.3		443	48	366	134	398	65	480
TOT PCT	16.0	67.0	16.8	.2	.0	.0		100.0			100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)					TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)			
	0-6	7-16	17-27	28-40	41+				00	03	09	15
N	.7	.2	.1	.0	.0	.0		1.0	5.4	.1	1.7	1.3
NE	.7	.4	.2	.0	.0	.0		1.3	7.5	.9	1.7	1.1
E	2.4	2.2	.1	.0	.0	.0		4.7	7.0	1.7	4.2	6.9
SE	14.6	19.5	.8	.0	.0	.0		35.0	7.9	28.8	32.9	40.9
S	17.8	22.8	1.3	.0	.0	.0		41.9	7.9	50.5	40.0	38.2
SW	4.9	4.3	.1	.0	.0	.0		9.3	7.1	12.5	10.9	4.9
W	.7	.4	.0	.0	.0	.0		1.2	6.1	1.8	.8	1.1
NW	.4	.2	.0	.0	.0	.0		.6	5.7	.9	.5	.1
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0
CALM	5.0							5.0	.0	2.9	7.6	5.6
TOT OBS	976	1035	54	0	0	2065		7.3		491	500	463
TOT PCT	47.3	50.1	2.6	.0	.0			100.0		100.0	100.0	100.0

PERIOD: (PRIMARY) 1931-1978
(OVER-ALL) 1875-1978

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AREA 0033 PUNTA NEGRA
6.35 81.3W

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)			48+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47				
00003	2.9	8.8	68.6	19.3	.4	.0	.0	7.9	100.0	491
06009	7.6	11.6	63.8	17.0	.0	.0	.0	7.2	100.0	500
12015	5.6	12.5	66.7	14.9	.2	.0	.0	7.0	100.0	463
18021	4.1	11.3	68.4	16.0	.2	.0	.0	7.2	100.0	611
TOT	103	228	1383	347	4	0	0	7.3		2065
PCT	5.0	11.0	67.0	16.8	.2	.0	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS) BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	.3	.2	.0	.0		1.8
NE	.2	.1	.4	.3		5.3
E	.0	1.2	1.6	.8		5.0
SE	10.5	7.7	12.9	5.4		4.4
S	14.7	10.1	14.9	6.1		4.1
SW	1.9	1.8	2.0	1.4		4.5
W	.0	.1	.2	.0		5.4
NW	.1	.0	.0	.1		4.0
VAR	.0	.0	.0	.0		.0
CALM	1.6	1.4	.6	.5		3.4
TOT OBS	284	214	310	141	949	4.2
TOT PCT	29.9	22.6	32.7	14.9	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8) AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

000	150	300	600	1000	2000	3500	5000	6500	8000+	NH <5/8	TOTAL
149	299	599	999	1999	3499	4999	6499	7999		ANY HGT	OBS
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.5	
.0	.0	.0	.1	.1	.2	.2	.0	.0	.0	.4	
.0	.0	.0	.2	.5	.3	.1	.0	.0	.0	.1	3.0
.1	.3	2.3	3.4	2.7	.8	.5	.4	.7	.5	29.5	
.1	.0	.3	2.6	2.8	2.3	.9	.7	.5	1.3	34.1	
.0	.0	.1	.2	.5	1.1	.2	.7	.1	.1	4.8	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.2	
.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
.0	.0	.0	.1	.5	.0	.1	.0	.0	.2	3.2	
1	1	7	53	75	64	22	11	9	24	682	949
.1	.1	.7	5.6	7.9	6.7	2.3	1.2	.9	2.5	71.9	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)							
	# OR >10	# OR >5	# OR >2	# OR >1	# OR >1/2	# OR >1/4	# OR >50YD	# OR >0
# OR >4500	2.5	3.4	3.4	3.4	3.5	3.5	3.5	3.5
# OR >4000	3.2	4.4	4.5	4.5	4.6	4.6	4.6	4.6
# OR >3500	4.8	6.5	6.6	6.6	6.7	6.7	6.7	6.7
# OR >3000	10.1	13.0	13.1	13.1	13.2	13.2	13.2	13.2
# OR >2000	16.3	20.5	20.9	20.9	21.0	21.0	21.0	21.0
# OR >1000	21.0	25.9	26.3	26.3	26.4	26.5	26.5	26.5
# OR >900	21.5	26.6	27.0	27.0	27.1	27.2	27.2	27.2
# OR >150	21.6	26.7	27.1	27.1	27.2	27.3	27.3	27.3
# OR >0	21.7	26.8	27.2	27.2	27.3	27.4	27.4	27.5
TOTAL	214	264	268	268	269	270	270	271

TOTAL NUMBER OF OBS 984

PCT FREQ NH <5/8 72.5

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	OBSCD	TOTAL OBS
21.7	15.8	16.0	10.4	7.3	5.2	6.6	6.6	10.3	.1	1000

PERIOD: (PRIMARY) 1931-1974
(OVER-ALL) 1875-1974

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AREA 0033 PUNTA NEGRA
6.3S 81.3W

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VISBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	*	.1	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	*	.1	.0	.0	.0	.0	.0	.0	.2
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	*	.1	.0	.0	.0	.0	.0	.0	.2
	TOT %	.0	.0	.0	*	.1	.0	.0	.0	.0	.0	.0	.2
1<2	PCP	.0	.0	.0	.1	.1	.0	.0	.0	.0	.0	.0	.2
	NO PCP	.0	.0	.0	.1	.1	.0	.0	.0	.0	.0	.0	.2
	TOT %	.0	.0	.0	.2	.2	.0	.0	.0	.0	.0	.0	.3
2<5	PCP	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.1
	NO PCP	.0	.0	.0	.4	.4	.0	.1	*	.0	.2	1.1	1.1
	TOT %	.0	.0	.0	.4	.4	.0	.1	*	.0	.2	1.1	1.1
5<10	PCP	.0	.0	.0	.1	.2	.0	.0	.0	.0	.0	.0	.3
	NO PCP	.1	.2	.6	3.7	4.7	1.1	.1	.0	.0	1.1	11.7	
	TOT %	.1	.2	.6	3.8	4.9	1.1	.1	.0	.0	1.1	12.0	
10+	PCP	.0	.0	.1	*	.2	.3	.0	.0	.0	.0	.0	.6
	NO PCP	.6	.9	4.1	31.6	38.9	6.0	.3	.3	.0	2.7	85.6	
	TOT %	.6	.9	4.2	31.8	39.1	6.2	.3	.3	.0	2.7	86.2	
TOT OBS													1238
TOT PCT		.6	1.2	4.8	36.3	44.9	7.3	.5	.3	.0	4.0	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED
WITH VARYING VALUES OF VISIBILITY

VISBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.1	.1	.0	.0	.0	.0	.0	.0	.2
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	11-21	.0	.0	.0	.1	.1	.0	.0	.0	.0	.0	.0	.2
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.1	.2	.0	.0	.0	.0	.0	.0	.4
1/2<1	0-3	.0	.0	.0	*	.1	.0	.0	.0	.0	.0	.0	.1
	4-10	.0	.0	.0	*	.1	.0	.0	.0	.0	.0	.0	.1
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.1
1<2	0-3	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1	.1	.1
	4-10	.0	.0	.0	.1	.1	.0	.0	.0	.0	.0	.0	.2
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.1	.1	.0	.0	.0	.0	.1	.1	.3
2<5	0-3	.0	.0	.0	.1	.1	.0	.0	.0	.0	.3	.5	.5
	4-10	.0	.0	.0	.4	.2	.0	.1	*	.0	.0	.0	.2
	11-21	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.2
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.5	.5	.0	.1	*	.0	.3	1.4	
5<10	0-3	.1	*	.2	.8	.6	.2	.0	.0	.0	1.3	3.3	
	4-10	.0	.2	.3	2.3	3.9	1.0	.1	.0	.0	.0	7.8	
	11-21	.0	.0	.0	.7	.6	*	.1	.0	.0	.0	1.4	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.1	.2	.6	3.8	5.1	1.3	.1	.0	.0	1.3	12.4	
10+	0-3	.1	.1	.6	2.6	3.2	.9	.0	.1	.0	3.1	10.6	
	4-10	.3	.6	2.7	21.0	27.4	5.3	.4	.3	.0	.0	57.9	
	11-21	.1	.2	.5	6.2	8.3	1.1	.1	.0	.0	.0	16.6	
	22+	.0	.0	.0	*	.1	.0	.0	.0	.0	.0	.1	
	TOT %	.6	.9	3.8	29.8	39.1	7.2	.4	.4	.0	3.1	85.2	
TOT OBS													1462
TOT PCT		.6	1.1	4.4	34.5	45.2	8.5	.6	.4	.0	4.7	100.0	

PERIOD: (PRIMARY) 1931-1978
(OVER-ALL) 1875-1978

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AREA 0033 PUNTA NEGRA
6.35 81.3W

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NM >4/8) AND
OCCURRENCE OF NM <3/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NM <3/8 ANY HGT	TOTAL OBS
00003	.0	.4	.4	4.5	4.1	6.7	2.2	.7	.4	1.9	21.3	78.7	268
06009	.5	.0	1.4	6.2	8.6	7.1	2.9	1.9	1.4	2.4	32.4	67.6	210
12015	.4	.0	1.1	8.6	9.7	7.9	3.2	1.4	1.4	2.9	36.7	63.3	278
18021	.0	.0	.0	1.8	7.7	4.0	.4	.4	.7	2.2	17.2	82.8	273
TOT	2	1	7	94	77	66	22	11	10	24	274	755	1029
PCT	.2	.1	.7	5.2	7.5	6.4	2.1	1.1	1.0	2.3	26.6	73.4	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.0	.0	.5	1.6	10.2	87.7	374
06009	.8	.0	.6	2.5	17.8	78.3	360
12015	.8	.5	.3	1.0	14.4	82.9	381
18021	.3	.3	.0	.8	9.8	89.0	399
TOT	7	3	5	22	196	1281	1514
PCT	.5	.2	.3	1.5	12.9	84.6	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR
CEILING HGT (FEET, NM >4/8), BY HOUR

HOUR (GMT)	<150 <50VD	<600 61	<1000 <5	1000+ AND 5+	NM <3/8 AND 5+	TOTAL OBS
00003	.0	.8	6.3	15.7	78.0	255
06009	.5	2.0	9.5	25.5	65.0	200
12015	.4	2.6	13.0	26.0	61.0	269
18021	.0	.0	2.7	15.8	81.5	260
TOT	2	13	77	202	705	984
PCT	.2	1.3	7.8	20.5	71.6	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
85/89	.0	.0	.0	.0	.3	.6	.1	.0	11	1.0
80/84	.0	.0	.0	.1	1.2	5.3	3.3	1.0	119	10.8
75/79	.0	.0	.0	.0	.7	10.0	20.6	9.7	492	41.0
70/74	.0	.0	.0	.0	.2	.5	13.9	27.3	461	41.8
65/69	.0	.0	.0	.0	.0	.2	1.0	4.3	60	5.4
TOTAL	0	0	0	1	26	182	428	466	1103	100.0
PCT	.0	.0	.0	.1	2.4	16.5	38.8	42.2		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
85/89	.0	.0	.0	.6	.3	.1	.0	.0	.0	.0
80/84	.2	.5	1.0	4.3	3.4	.8	.2	.1	.0	.5
75/79	.3	.3	2.3	16.5	17.8	3.0	.4	.1	.0	.4
70/74	.2	.2	1.3	14.7	19.2	3.4	.4	.1	.0	2.3
65/69	.0	.0	.4	1.2	3.0	.3	.0	.0	.0	.5
TOTAL	.7	1.0	5.1	37.4	43.6	7.5	.9	.3	.0	3.5

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	90%	5%	1%	MIN	MEAN	TOTAL OBS
00003	95	84	81	75	70	68	67	75.3	494
06009	82	81	79	73	69	67	66	73.5	520
12015	92	82	80	74	69	66	62	74.1	488
18021	94	88	84	78	72	69	65	77.8	613
TOT	95	86	82	75	69	67	62	75.3	2115

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	.0	.3	14.4	45.5	39.8	87	299		
06009	.0	.0	2.1	6.2	32.5	59.3	90	243		
12015	.0	.0	.3	9.5	35.1	55.1	89	316		
18021	.0	.7	6.9	33.4	39.3	19.7	82	305		
TOT	0	2	28	190	446	497	87	1163		

FEBRUARY

PERIOD: (PRIMARY) 1931-1978
(OVER-ALL) 1875-1978AREA 0033 PUNTA NEGRA
6.35 81.3W

TABLE 17

PCT FRQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	61 64	65 68	69 72	74 76	77 80	81 84	85 88	89 92	92	TOT	W FOG	WD FOG
29/25	.0	.0	.0	.0	.0	.0	.0	.0	.1	1	.0	.1
26/22	.0	.0	.0	.0	.0	.0	.1	.0	.1	2	.0	.2
14/16	.0	.0	.1	.1	.1	.3	.1	.1	.0	9	.0	.7
11/13	.0	.0	.0	.8	.2	.2	.2	.1	.0	19	.0	1.5
9/10	.0	.0	.2	.7	.2	.6	.3	.0	.0	25	.0	2.0
7/8	.0	.1	.0	1.1	1.7	.8	.3	.0	.0	57	.1	4.5
6	.0	.0	.0	1.1	1.0	.6	.1	.0	.0	35	.0	2.8
5	.0	.0	.3	1.5	1.8	.6	.1	.0	.0	55	.0	4.4
4	.0	.1	1.4	1.6	1.4	1.0	.2	.0	.0	71	.1	5.6
3	.0	.3	1.9	3.0	1.9	.6	.2	.0	.0	99	.2	7.7
2	.0	.2	3.3	3.8	3.7	.9	.0	.0	.0	149	.3	11.6
1	.0	.4	3.5	5.5	2.2	.8	.0	.0	.0	156	.2	12.2
0	.0	.3	3.8	7.4	4.5	.6	.0	.0	.0	209	.3	16.3
-1	.0	.1	2.4	4.7	3.1	.4	.0	.0	.0	134	.2	10.5
-2	.0	.1	1.7	2.8	2.5	.3	.0	.0	.0	92	.1	7.3
-3	.0	.2	.8	2.4	1.8	.0	.0	.0	.0	64	.2	4.9
-4	.0	.2	.6	1.0	1.2	.0	.0	.0	.0	37	.0	3.0
-5	.0	.1	.2	.8	.5	.1	.0	.0	.0	20	.0	1.6
-6	.0	.1	.1	.2	.0	.0	.0	.0	.0	4	.0	.3
-7/-8	.1	.3	.2	.3	.0	.0	.0	.0	.0	12	.1	.9
-9/-10	.0	.1	.1	.1	.0	.0	.0	.0	.0	3	.0	.2
-11/-13	.0	.0	.0	.0	.1	.0	.0	.0	.0	1	.0	.1
TOTAL	1	31	488	349	27.8	7.8	1.5	.2	.2	1254	1.8	98.2
PCT	.1	2.5	21.1	38.9	27.8	7.8	1.5	.2	.2	100.0	1.8	98.2

PERIOD: (OVER-ALL) 1963-1978

TABLE 18

PCT FRQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	N	22-33	34-47	48+	PCT	1-3	4-10	11-21	NE	22-33	34-47	48+	PCT
41	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.5	.0	.0	.0	.0	.0	.5
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.2	.0	.0	.0	.0	.4
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.4	.0	.0	.0	.0	.4
7	.0	.0	.4	.0	.0	.0	.4	.0	.0	.0	1	.0	.0	.0	.0	.1
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.0	.4	.0	.0	.0	.4	.0	.0	.8	.7	.0	.0	.0	.0	1.4

HGT	1-3	4-10	11-21	F	22-33	34-47	48+	PCT	1-3	4-10	11-21	SE	22-33	34-47	48+	PCT
41	.2	.2	.3	.0	.0	.0	.0	.9	.6	2.6	.1	.0	.0	.0	.0	3.3
1-2	.2	2.1	.0	.0	.0	.0	.0	2.4	2.2	16.0	3.9	.0	.0	.0	.0	22.0
3-4	.0	.7	.2	.0	.0	.0	.0	.9	1.1	4.6	3.4	.0	.0	.0	.0	9.0
5-6	.0	.2	.0	.0	.0	.0	.0	.2	.2	.7	.6	.0	.0	.0	.0	1.5
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1	.0	.0	.0	.0	.1
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.4	3.3	.8	.0	.0	.0	.0	4.4	4.1	23.9	8.0	.0	.0	.0	.0	36.0

PERIOD: (OVER-ALL) 1963-1978

FEBRUARY

AREA 0033 PUNTA NEGRA
6.35 81.3W

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	1.0	4.0	.2	.0	.0	.0	5.2	.4	.3	.0	.0	.0	.0	.7
1-2	1.4	18.8	3.8	.0	.0	.0	24.0	.2	3.3	.1	.0	.0	.0	3.6
3-4	.0	8.0	3.4	.0	.0	.0	11.4	.2	.9	.0	.0	.0	.0	2.0
5-6	.0	.5	3.2	.2	.0	.0	3.9	.0	.3	.1	.0	.0	.0	.4
7	.0	.2	.4	.0	.0	.0	.6	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.2	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	2.4	31.5	11.1	.2	.0	.0	45.2	.9	4.8	1.1	.0	.0	.0	6.8

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.2	
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.4	.0	.0	.0	.0	.4	
3-4	.0	.2	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.0	.2	.0	.0	.0	.0	.2	.2	.4	.0	.0	.0	.0	.6	95.1

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	9.2	6.7	.8	.0	.0	.0	16.7	
1-2	5.3	40.2	7.3	.0	.0	.0	52.9	
3-4	1.2	14.1	7.8	.0	.0	.0	23.1	
5-6	.2	1.6	4.1	.2	.0	.0	6.1	
7	.0	.2	.8	.0	.0	.0	1.0	
8-9	.0	.0	.2	.0	.0	.0	.2	
10-11	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	15.9	62.9	21.0	.2	.0	.0	100.0	490

PERIOD: (OVER-ALL) 1949-1978

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
4-5	3.2	17.8	19.5	6.2	1.1	.1	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	404	3
6-7	.1	2.6	9.7	6.3	2.7	.2	.0	.1	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	186	4
8-9	.1	1.4	3.1	4.4	1.4	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	90	4
10-11	.0	2.0	1.3	2.0	.8	.4	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	56	4
12-13	.0	.0	1.7	.5	.4	.1	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	25	5
14-15	.0	.0	.0	.2	.5	.4	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	10	8
16-17	.0	.0	.0	.0	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	71	2
TOTAL	3.6	1.7	2.3	.6	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	842	3
PCT	7.0	25.5	37.5	20.2	7.1	1.4	.5	.4	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	

PERIOD: (PRIMARY) 1932-1978
(OVER-ALL) 1874-1978

MARCH

AREA 0033 PUNTA NEGRA
0.4S 81.2W

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FGD PCPN	FGD WD PCPN	SNOKE HAZE	BLWG DUST	NO SIG WEA
N	23.5	.0	.0	.0	.0	.0	.0	23.5	.0	.0	.0	.0	.0	.0	76.5
NE	.0	.0	.0	.0	.0	.0	.0	.0	3.3	.0	13.3	.0	.0	.0	83.3
E	1.9	1.9	.8	.0	.0	.0	.0	4.5	1.9	.0	1.1	.8	.0	.0	91.8
SE	1.0	.3	.7	.0	.0	.0	.0	1.4	.3	.2	2.3	.2	1.0	*	94.5
S	.8	.5	.3	.0	.0	.0	.0	1.6	.4	.5	1.4	.0	3.2	.1	92.6
SW	.0	1.1	1.1	.0	.0	.0	.0	2.2	1.4	1.1	2.2	1.1	.6	.0	91.4
W	.0	11.4	.0	.0	.0	.0	.0	11.4	.0	.0	.0	.0	.0	.0	88.6
NW	23.5	.0	.0	.0	.0	.0	.0	23.5	.0	11.8	.0	.0	.0	.0	64.7
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	3.8	.0	.0	.0	.0	.0	3.8	.0	1.3	7.7	1.3	3.8	.0	82.1
TOT PCT	1.0														
TOT OBS:	1503	.7	.5	.0	.0	.0	.0	2.1	.5	.5	2.1	.2	1.9	.1	92.6

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FGD PCPN	FGD WD PCPN	SNOKE HAZE	BLWG DUST	NO SIG WEA
00003	.8	.5	.3	.0	.0	.0	.0	1.5	.3	.3	1.0	.3	2.5	.0	94.2
06009	1.3	1.6	.3	.0	.0	.0	.0	3.2	.3	1.3	1.3	.0	1.6	.0	92.3
12013	1.8	.7	1.1	.0	.0	.0	.0	3.0	1.1	.2	5.5	.7	1.8	.2	87.4
18021	.2	.2	.2	.0	.0	.0	.0	.7	.2	.2	.5	.0	1.9	.0	96.4
TOT PCT	1.0														
TOT OBS:	1622	.7	.5	.0	.0	.0	.0	2.1	.5	.5	2.2	.2	2.0	.1	92.5

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	48+					00	03	06	09	12	15	18	21
N	.1	.3	*	.0	.0	.0		.5	5.6	.2	.0	.6	2.0	.3	.0	.6	.4	
NE	.3	.9	*	.0	.0	.0		1.1	5.7	.2	1.9	.8	1.4	1.6	1.4	1.3	2.7	
E	.5	4.3	1.4	.0	.0	.0		6.3	8.3	3.9	10.4	6.3	8.4	13.6	5.8	1.9		
SE	2.8	24.5	11.9	.1	.0	.0		39.2	9.0	31.9	52.4	36.0	40.3	47.3	45.0	41.8	25.3	
S	4.5	25.7	9.8	.1	.0	.0		40.1	8.3	49.0	29.2	43.0	33.5	31.5	32.3	38.8	51.0	
SW	1.1	4.7	.9	.0	.0	.0		6.7	7.2	10.5	4.2	5.5	5.3	3.7	2.3	6.1	14.9	
W	.1	.4	.1	.0	.0	.0		.6	6.1	1.0	.0	.3	.7	.2	.0	1.0	1.2	
NW	.1	.4	.1	.0	.0	.0		.6	6.0	.9	.0	.9	.7	.4	.0	.2	1.5	
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	4.9							4.9	.0	2.4	1.9	6.6	8.2	6.4	5.5	4.5	.8	
TOT OBS	340	1447	575	5	0	0		2367	8.0	491	53	458	147	519	55	515	129	
TOT PCT	14.4	61.1	24.3	.2	.0	.0		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)				TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)			
	0-6	7-16	17-27	28-40				00	06	12	18
N	.3	.2	.0	.0	.0	.5	5.6	.1	1.0	.3	.5
NE	.7	.4	.0	.0	.0	1.1	5.7	.4	.9	1.6	1.6
E	2.3	3.8	.2	.0	.0	6.3	8.3	4.5	6.7	8.9	5.0
SE	11.5	26.8	.9	.0	.0	39.2	9.0	33.9	37.1	47.3	38.5
S	15.5	23.1	1.4	*	.0	40.1	8.3	47.1	40.7	31.6	41.3
SW	3.3	3.1	.3	.0	.0	6.7	7.2	9.9	5.5	3.5	7.9
W	.4	.2	.0	.0	.0	.6	6.1	.9	.4	.2	1.0
NW	.5	.1	.0	.0	.0	.6	6.0	.8	.8	.4	.5
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	4.9					4.9	.0	2.4	6.9	6.3	3.7
TOT OBS	931	1369	66	1	0	2367	8.0	544	605	574	644
TOT PCT	39.3	57.8	2.8	*	.0	100.0		100.0	100.0	100.0	100.0

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PERIOD: (PRIMARY) 1932-1976
(OVER-ALL) 1874-1978AREA 0033 PUNTA NEGRA
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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

MO/HK	CALM	1-3	4-10	11-21	22-23	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
00603	2.4	7.4	65.8	24.3	.2	.0	.0	8.4	100.0	544
06609	6.9	9.4	60.8	22.6	.2	.0	.0	7.8	100.0	605
12615	6.3	11.3	59.2	23.2	.0	.0	.0	7.5	100.0	574
18621	8.7	9.8	59.2	26.9	.5	.0	.0	8.3	100.0	644
TOT	115	225	1447	575	5	0	0	8.0		2367
PCT	4.9	9.5	61.1	24.3	.2	.0	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	.1	.0	.1	.1		4.3
NE	.1	.2	.2	.*		4.9
E	1.2	1.4	1.7	1.5		4.9
SE	10.9	8.6	15.4	5.9		4.4
S	11.8	9.6	13.8	6.0		4.3
SW	1.4	1.0	2.4	.8		4.7
W	.4	.0	.1	.1		3.3
NW	.1	.1	.2	.2		3.3
VAR	.0	.0	.0	.0		.0
CALM	1.2	.8	2.0	.9		4.7
TOT OBS	331	254	437	189	1221	4.4
TOT PCT	27.1	21.6	35.8	15.5	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8)
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

	000 149	150 299	300 399	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH <5/8 ANY HGT	TOTAL OBS
N	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.2	
NE	.0	.0	.0	.*	.*	.1	.1	.*	.*	.0	.2	
E	.1	.0	.1	.2	.6	.4	.3	.1	.2	.1	3.6	
SE	.2	.2	.5	1.7	4.8	1.9	.9	.2	.5	.8	28.9	
S	.1	.0	.6	1.3	3.5	1.8	1.1	.3	.5	1.3	30.6	
SW	.0	.0	.1	.1	.6	.1	.3	.0	.1	.1	4.0	
W	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.6	
NW	.0	.0	.1	.0	.1	.1	.0	.0	.0	.0	.2	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.1	.0	.0	.2	.7	.3	.2	.1	.0	.1	3.3	
TOT OBS	6	2	18	45	130	58	35	8	16	29	874	1221
TOT PCT	.5	.2	1.5	3.7	10.6	4.8	2.9	.7	1.3	2.4	71.6	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE
OF CEILING HEIGHT (NH >4/8) AND VSHY (NH)

CFILING (FEET)	VSHY (NH)							
	>10	>5	>2	>1	>1/2	>1/4	>50YD	>0
# OR >6500	3.2	3.7	3.7	3.7	3.7	3.7	3.7	3.7
# OR >5000	3.7	4.2	4.2	4.3	4.3	4.3	4.3	4.3
# OR >3500	6.0	7.1	7.3	7.3	7.3	7.3	7.3	7.3
# OR >2000	9.3	11.9	12.0	12.0	12.0	12.0	12.1	12.1
# OR >1000	18.1	22.4	22.7	22.7	22.7	22.7	22.7	22.7
# OR >600	20.6	25.8	26.4	26.4	26.4	26.5	26.6	26.6
# OR >300	21.6	27.3	27.9	27.9	27.9	27.9	28.0	28.0
# OR >150	21.7	27.5	28.0	28.0	28.0	28.1	28.2	28.2
# OR >0	21.7	27.5	28.1	28.2	28.2	28.3	28.6	28.7
TOTAL	267	339	346	347	347	348	352	353

TOTAL NUMBER OF OBS 1231

PCT FREQ NH <5/8 71.3

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8 OBSCD	TOTAL OBS
21.1	13.8	15.1	11.2	9.6	6.0	6.2	6.7	9.9	1308

PERIOD: (PRIMARY) 1932-1978
(OVER-ALL) 1874-1978

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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.1	.1	.1	.1	.0	.0	.0	.0	.2	.5	.5
	TOT %	.0	.1	.1	.1	.1	.0	.0	.0	.0	.2	.5	.5
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.1	.1	.0	.0	.0	.0	.1	.2	.2
	TOT %	.0	.0	.0	.1	.1	.0	.0	.0	.0	.1	.2	.2
1<2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.2	*	.0	.0	.0	.0	.0	.2	.2
	TOT %	.0	.0	.0	.2	*	.0	.0	.0	.0	.0	.2	.2
2<5	PCP	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1	.1
	NO PCP	.0	.0	.0	.6	.4	.2	.0	.0	.0	.4	1.6	1.6
	TOT %	.0	.0	.0	.6	.4	.2	.0	.0	.0	.4	1.7	1.7
5<10	PCP	.1	.0	.1	.3	.3	.1	.1	.1	.0	.1	1.2	1.2
	NO PCP	.0	.0	.8	6.6	7.5	1.3	.0	.1	.0	1.2	17.6	17.6
	TOT %	.1	.0	1.0	6.9	7.9	1.4	.1	.2	.0	1.3	18.8	18.8
10+	PCP	.0	.0	.2	.3	.2	.0	.0	.0	.0	.1	.7	.7
	NO PCP	.2	.4	4.8	32.4	32.4	4.2	.5	.3	.0	2.8	77.9	77.9
	TOT %	.2	.4	4.9	32.7	32.6	4.2	.5	.3	.0	2.9	78.6	78.6
TOT OBS													1590
TOT PCT													
		.3	.5	5.9	40.6	41.1	5.7	.6	.5	.0	4.8	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.1	.0	.1	.0	.0	.0	.0	.0	.2	.3	.3
	4-10	.0	.0	.1	*	*	.0	.0	.0	.0	.0	.1	.1
	11-21	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1	.1
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.1	.1	.1	.1	.0	.0	.0	.0	.2	.5	.5
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1	.1
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	11-21	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.1	.1
	22+	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1	.1
	TOT %	.0	.0	.0	.1	.1	.0	.0	.0	.0	.1	.2	.2
1<2	0-3	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1	.1	.1
	4-10	.0	.0	.0	.1	.1	.0	.0	.0	.0	.0	.2	.2
	11-21	.0	.0	.0	*	*	.0	.0	.0	.0	.0	.1	.1
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.1	.1	.0	.0	.0	.0	.1	.3	.3
2<5	0-3	.0	.0	.0	.1	.1	*	.0	.0	.0	.4	.5	.5
	4-10	.0	.0	.0	.5	.5	.2	.0	.0	.0	.0	1.2	1.2
	11-21	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.1	.1
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.6	.6	.3	.0	.0	.0	.4	1.9	1.9
5<10	0-3	*	.0	.2	.6	.8	.4	.0	.1	.0	1.4	3.5	3.5
	4-10	.1	.0	.7	3.1	4.6	.8	.1	.1	.0	.0	9.4	9.4
	11-21	.0	.0	.1	2.7	2.3	.3	.0	.0	.0	.0	5.5	5.5
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.1	.0	1.0	6.4	7.7	1.5	.1	.2	.0	1.4	18.3	18.3
10+	0-3	.1	.1	.3	1.8	3.4	.6	.1	.1	.0	3.2	9.6	9.6
	4-10	.1	.3	3.3	19.5	21.0	3.3	.3	.1	.0	.0	48.0	48.0
	11-21	*	*	1.2	10.1	8.9	.7	.1	.1	.0	.0	21.1	21.1
	22+	.0	.0	.0	.1	.1	.0	.0	.0	.0	.0	.2	.2
	TOT %	.2	.5	4.8	31.4	33.3	4.7	.5	.3	.0	3.2	78.8	78.8
TOT OBS													1870
TOT PCT													
		.3	.5	5.8	38.8	41.9	6.4	.5	.5	.0	5.3	100.0	

PERIOD: (PRIMARY) 1932-1978
(OVER-ALL) 1874-1978

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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NH $\geq 4/8$) AND
OCCURRENCE OF NH $\leq 3/8$ BY HOUR

HOUR (GMT)	000 149	150 299	300 399	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH $\leq 5/8$ ANY HGT	TOTAL OBS
00003	.0	.3	.9	2.8	6.9	2.2	4.4	.0	1.3	1.9	20.8	79.2	317
06009	.7	.0	2.5	4.2	13.3	6.0	4.9	.4	1.1	1.8	34.7	65.3	285
12015	1.1	.3	2.0	5.9	12.4	7.6	1.7	1.4	1.7	3.9	38.9	61.1	357
18021	.0	.0	.3	1.6	7.5	2.5	.9	.6	.9	1.2	15.6	84.4	321
TOT	6	2	18	47	132	59	37	8	16	29	354	926	1280
PCT	.5	.2	1.4	3.7	10.3	4.6	2.9	.6	1.3	2.3	27.7	72.3	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	$\leq 1/2$	1/2-1	1-2	2-5	5-10	10+	TOTAL OBS
00003	.0	.0	.2	1.3	14.2	82.2	450
06009	.4	.2	.2	2.1	22.6	74.4	468
12015	1.5	.4	.6	3.0	20.0	74.5	474
18021	.0	.0	.2	1.2	19.1	83.5	497
TOT	9	3	6	36	349	1486	1889
PCT	.5	.2	.3	1.9	18.5	78.7	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR
CEILING HGT (FEET, NH $\geq 4/8$), BY HOUR

HOUR (GMT)	≤ 150 ≤ 500	≤ 600 ≤ 1	≤ 1000 ≤ 5	1000+ AND 5+	NH $\leq 5/8$ AND 5+	TOTAL OBS
00003	.0	1.3	5.2	17.0	77.7	305
06009	.7	3.3	8.8	28.1	63.1	274
12015	1.1	4.3	13.2	29.6	57.2	348
18021	.0	.3	2.6	14.5	82.9	304
TOT	6	29	94	276	861	1231
PCT	.5	2.4	7.6	22.4	69.9	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
95/99	.0	.0	.0	.1	.1	.0	.0	.0	2	.1
90/94	.0	.0	.0	.0	.1	.1	.1	.1	4	.3
85/89	.0	.0	.0	.1	.7	.5	.4	.1	25	1.8
80/84	.0	.0	.0	.1	1.2	5.1	3.5	1.7	101	11.6
75/79	.0	.0	.0	.0	.3	6.6	19.9	10.1	511	36.9
70/74	.0	.0	.0	.0	.6	1.8	13.2	24.1	549	39.7
65/69	.0	.0	.0	.0	.1	.1	2.5	6.9	132	9.5
TOTAL	0	0	0	3	42	196	548	595	1384	100.0
PCT	.0	.0	.0	.2	3.0	14.2	39.6	43.0		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
95/99	.0	.0	.1	.1	.0	.0	.0	.0	.0	.0
90/94	.0	.1	.0	.1	.1	.0	.0	.0	.0	.1
85/89	.0	.1	.2	.9	.4	.1	.0	.0	.0	.1
80/84	.0	.0	1.8	5.1	3.0	.7	.2	.3	.0	.4
75/79	.1	.3	1.9	17.1	13.7	2.6	.2	.1	.0	.8
70/74	.1	.2	1.9	13.6	18.6	2.2	.0	.2	.0	2.8
65/69	.0	.1	.6	3.5	3.9	.6	.1	.1	.0	.6
TOTAL	.2	.8	6.5	40.4	39.7	6.3	.5	.8	.0	4.8

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	95	84	81	75	69	67	65	75.0	542
06009	96	81	79	73	68	66	64	73.2	607
12015	94	83	80	74	68	66	65	73.8	596
18021	95	88	85	77	70	68	67	77.5	636
TOT	96	86	82	75	68	66	64	74.9	2379

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-39	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	.3	.6	12.1	44.8	42.2	87	346
06009	.0	.0	.6	7.9	32.4	59.1	89	318
12015	.0	.3	2.1	6.8	37.8	53.1	89	384
18021	.0	.3	8.7	30.2	42.2	18.7	82	358
TOT	0	3	43	201	554	605	87	1406

PERIOD: (PRIMARY) 1932-1978
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TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	65 68	69 72	73 76	77 80	81 84	85 88	89 92	>92	TOT	W FOG	NO FOG
17/19	.0	.0	.0	.1	.0	.1	.0	.1	3	.0	.2
14/16	.0	.0	.0	.0	.0	.1	.1	.0	2	.0	.1
11/13	.0	.0	.3	.4	.3	.2	.0	.1	19	.0	1.3
9/10	.0	.1	.0	.5	.3	.2	.0	.0	18	.0	1.2
7/8	.1	.3	1.2	.7	.6	.3	.0	.0	46	.0	3.1
6	.1	.5	.6	1.4	.4	.1	.0	.0	46	.0	3.1
5	.0	.9	1.2	.9	.8	.1	.0	.0	58	.1	3.9
4	.7	2.2	1.2	1.3	1.3	.1	.0	.0	99	.3	6.4
3	.9	3.2	2.3	1.6	.6	.1	.0	.0	128	.3	8.4
2	1.2	4.6	2.8	3.3	.8	.0	.0	.0	186	.3	12.3
1	.8	3.8	5.2	2.8	.3	.1	.0	.0	192	.3	12.7
0	.4	3.7	6.1	3.3	1.2	.0	.0	.0	217	.4	14.3
-1	.5	1.8	4.7	3.3	.6	.0	.0	.0	160	.2	10.6
-2	.3	1.6	3.9	2.4	.5	.0	.0	.0	127	.1	8.5
-3	.1	1.5	1.5	2.2	.1	.0	.0	.0	79	.1	5.3
-4	.1	.5	1.2	1.3	.1	.0	.0	.0	46	.0	3.1
-5	.1	.6	.5	.4	.0	.0	.0	.0	24	.1	1.6
-6	.0	.1	.5	.3	.0	.0	.0	.0	14	.0	.9
-7+8	.1	.3	.3	.2	.0	.0	.0	.0	12	.1	.7
TOTAL	77	493	389	117	18	1	2	1476	32	1444	
PCT	5.2	25.7	33.4	26.4	7.9	1.2	.1	.1	100.0	2.2	97.8

PERIOD: (OVER-ALL) 1963-1978

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	N								NE							
	1-3	4-10	11-21	22-33	34-47	48+	PCT		1-3	4-10	11-21	22-33	34-47	48+	PCT	
<1	.0	.2	.0	.0	.0	.0	.2		.2	.0	.0	.0	.0	.0	.2	
1-2	.0	.0	.0	.0	.0	.0	.0		.0	.1	.0	.0	.0	.0	.1	
3-4	.0	.0	.1	.0	.0	.0	.1		.0	.0	.0	.0	.0	.0	.0	
5-6	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	
7	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.0	.2	.1	.0	.0	.0	.3		.2	.1	.0	.0	.0	.0	.3	

HGT	E								SE							
	1-3	4-10	11-21	22-33	34-47	48+	PCT		1-3	4-10	11-21	22-33	34-47	48+	PCT	
<1	.2	.1	.0	.0	.0	.0	.3		.5	2.0	.6	.0	.0	.0	3.2	
1-2	.4	3.9	1.1	.0	.0	.0	5.4		.4	13.0	5.0	.0	.0	.0	18.5	
3-4	.0	1.0	.6	.0	.0	.0	1.6		.2	4.6	6.0	.0	.0	.0	10.8	
5-6	.0	.6	.1	.0	.0	.0	.7		.0	1.9	4.6	.0	.0	.0	6.5	
7	.0	.0	.0	.0	.0	.0	.0		.0	.1	.7	.0	.0	.0	.8	
8-9	.0	.0	.0	.0	.0	.0	.0		.0	.0	.2	.0	.0	.0	.2	
10-11	.0	.0	.0	.0	.0	.0	.0		.0	.0	.2	.0	.0	.0	.2	
12	.0	.0	.0	.0	.0	.0	.0		.0	.0	.2	.0	.0	.0	.2	
13-16	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.6	5.6	1.8	.0	.0	.0	8.0		1.2	21.6	17.5	.0	.0	.0	40.3	

PERIOD: (OVER-ALL) 1963-1978

MARCH

AREA 0033 PUNTA NEGRA
6.45 81.2W

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	1.0	4.4	.0	.0	.0	.0	5.4	.7	.6	.0	.0	.0	.0	1.2	
1-2	.7	11.1	4.0	.0	.0	.0	15.7	.2	2.4	.5	.0	.0	.0	3.1	
3-4	.5	6.8	5.2	.0	.0	.0	12.6	.1	1.1	.3	.0	.0	.0	1.5	
5-6	.0	1.4	3.2	.0	.0	.0	4.6	.0	.2	.4	.0	.0	.0	.5	
7	.0	.4	.4	.0	.0	.0	.8	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	2.2	24.0	12.8	.0	.0	.0	39.1	1.0	4.2	1.2	.0	.0	.0	6.3	

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	.2	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	
1-2	.0	.3	.0	.0	.0	.0	.4	.0	.0	.0	.0	.0	.0	.0	
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.0	.4	.2	.0	.0	.0	.6	.0	.0	.0	.0	.0	.0	.0	94.9

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	7.8	7.2	.6	.0	.0	.0	15.7	
1-2	2.2	30.6	10.6	.0	.0	.0	43.4	
3-4	.8	13.5	12.2	.0	.0	.0	26.5	
5-6	.0	4.1	6.2	.0	.0	.0	12.4	
7	.0	.5	1.1	.0	.0	.0	1.6	
8-9	.0	.0	.2	.0	.0	.0	.2	
10-11	.0	.0	.2	.0	.0	.0	.2	
12	.0	.0	.2	.0	.0	.0	.2	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	10.8	55.9	33.3	.0	.0	.0	100.0	631

PERIOD: (OVER-ALL) 1949-1978

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	4.4	11.2	16.4	6.3	.8	.1	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	407	3
6-7	.1	1.8	7.3	7.7	3.5	1.1	1.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	238	5
8-9	.0	1.1	4.2	5.2	2.7	.5	1.2	.1	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	157	5
10-11	.0	.7	1.8	2.4	1.9	.4	.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	76	6
12-13	.0	.0	1.4	.9	.7	.4	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	37	5
>13	.0	.0	.0	.5	.2	.1	.2	.1	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	13	8
INDET	4.0	1.8	3.2	1.4	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	109	2
TOTAL	.88	167	357	253	101	26	38	3	3	1	0	0	0	0	0	0	0	0	0	1037	4
PCT	8.5	16.1	34.4	24.4	9.7	2.5	3.7	.3	.3	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	

PERIOD: (PRIMARY) 1932-1977
(OVER-ALL) 1872-1977

APRIL

AREA 0033 PUNTA NEGRA
6.4S 81.1W

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA						
	RAIN	RAIN SHWK	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THOR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST SIG WEA
N	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
E	2.7	.0	.0	.0	.0	.0	.0	2.7	2.7	.0	.0	.0	5.1	89.5
SE	.3	.2	.2	.0	.0	.0	.0	.6	.9	.2	2.8	.0	4.6	90.9
S	.8	.0	.1	.0	.0	.0	.0	.8	.2	.4	2.0	.2	6.2	90.3
SW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	.0	6.3	93.4
W	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	14.5	85.5
NW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.9	2.9	14.7	79.4
TOT PCT	.6	.1	.1	.0	.0	.0	.0	.7	.6	.3	2.2	.1	5.7	90.5
TOT OBS: 1393														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA						
	RAIN	RAIN SHWK	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THOR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST SIG WEA
00003	.3	.0	.0	.0	.0	.0	.0	.3	.3	.3	2.1	.0	4.8	92.2
06009	.9	.0	.3	.0	.0	.0	.0	.9	.3	.3	1.2	.3	4.2	92.5
12015	1.2	.3	.0	.0	.0	.0	.0	1.5	1.2	.3	3.3	.0	5.9	87.9
18021	.0	.0	.3	.0	.0	.0	.0	.3	.6	.0	1.9	.3	7.7	89.2
TOT PCT	.6	.1	.1	.0	.0	.0	.0	.7	.6	.3	2.1	.1	5.7	90.5
TOT OBS: 1408														

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	48+					00	03	06	09	12	15	18	21
N	.2	.3	.1	.0	.0	.0		.6	6.7	.2	.0	.5	.9	.7	.0	.7	.9	
NE	.1	.3	.0	.0	.0	.0		.4	5.9	.0	.0	.6	.9	.3	.0	.6	.0	
E	.7	3.1	1.3	.1	.0	.0		5.1	8.0	1.9	11.1	3.4	5.3	8.4	6.3	7.6	1.8	
SE	2.6	26.6	19.3	.2	.0	.0		42.7	9.2	38.1	35.6	41.7	43.6	47.2	53.9	45.1	33.7	
S	3.2	27.2	10.5	.2	.0	.0		41.1	8.8	50.0	22.2	41.4	34.3	34.6	30.5	39.2	47.9	
SW	.7	4.3	1.4	.0	.0	.0		6.4	8.2	7.7	7.4	6.5	7.3	5.3	6.3	4.6	9.2	
W	.1	.7	.2	.0	.0	.0		1.1	8.3	1.4	.0	1.5	.4	.8	2.3	.4	2.3	
NW	.1	.2	.1	.0	.0	.0		.4	8.2	.1	.0	.1	.0	.6	.8	.5	1.4	
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	2.3							2.3	.0	.6	3.7	4.2	7.1	2.1	.0	1.3	2.8	
TOT OBS	196	1749	536	9	0	0	1990		8.7	469	27	406	113	387	32	447	109	
TOT PCT	9.8	67.8	26.9	.5	.0	.0		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)				TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)			
	0-6	7-16	17-27	28-40				00	06	12	18
N	.3	.3	.0	.0	.0	.6	6.7	.2	.6	.7	.8
NE	.2	.2	.0	.0	.0	.4	5.9	.0	.7	.3	.4
E	2.3	2.6	.2	.0	.0	5.1	8.0	2.4	3.9	8.2	6.4
SE	12.2	28.9	1.6	.0	.0	42.7	9.2	39.0	42.1	47.7	42.9
S	13.2	26.6	1.4	.0	.0	41.1	8.8	48.5	39.9	34.2	40.9
SW	2.4	2.7	.2	.0	.0	6.4	8.2	7.7	6.7	5.4	5.5
W	.3	.7	.1	.0	.0	1.1	8.3	1.3	1.3	1.0	.8
NW	.1	.2	.0	.0	.0	.4	8.2	.1	.1	.6	.7
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	2.3					2.3	.0	.8	4.8	1.9	1.6
TOT OBS	664	1257	69	0	1990	8.7		496	519	419	356
TOT PCT	33.4	63.2	3.5	.0	.0	100.0		100.0	100.0	100.0	100.0

PERIOD: (PRIMARY) 1932-1977
(OVER-ALL) 1872-1977

APRIL

AREA 0033 PUNTA NEGRA
6.45 81.1W

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)			48+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47				
0000Z	.8	5.2	62.1	31.5	.4	.0	.0	9.4	100.0	496
0600Z	4.8	8.1	64.7	21.8	.6	.0	.0	8.0	100.0	519
1200Z	1.9	11.9	63.0	22.9	.2	.0	.0	8.1	100.0	419
1800Z	1.6	5.8	61.3	30.8	.5	.0	.0	9.1	100.0	556
TOT	46	150	1249	536	9	0	0	8.7		1990
PCT	2.3	7.5	62.8	26.9	.5	.0	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & 10	TOTAL OBS	MEAN CLOUD COVER
N	.1	.2	.1	.0		3.4
NE	.1	.0	.2	.0		4.9
E	.7	1.2	1.3	.7		4.8
SE	15.9	9.8	14.2	5.3		3.9
S	10.6	9.0	11.2	5.2		3.6
SW	1.8	.9	1.5	.5		3.6
W	.4	.3	.5	.0		4.3
NW	.1	.0	.0	.0		2.1
VAR	.0	.0	.0	.0		.0
CALM	1.0	.5	.4	.2		3.0
TOT OBS	375	224	302	123	1024	3.8
TOT PCT	36.6	21.9	29.5	12.0	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NM >4/8)
AND OCCURRENCE OF NM <5/8 BY WIND DIRECTION

	000	150	300	600	1000	2000	3500	5000	6500	8000+	NM <5/8 ANY HGT	TOTAL OBS
	149	299	599	999	1999	3499	4999	6499	7999			
N	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.3	
NE	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.1	
E	.0	.0	.1	.1	.4	.2	.1	.1	.0	.0	.2	
SE	.0	.2	.6	1.8	3.2	2.4	1.2	.7	.8	.9	1.8	33.4
S	.2	.0	.3	.9	3.6	1.5	1.3	.4	.9	.9	1.0	32.0
SW	.0	.0	.0	.1	.3	.5	.1	.2	.0	.0	.2	3.1
W	.0	.0	.1	.0	.3	.0	.1	.0	.0	.0	.0	.8
NW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.2	.0	.0	.1	.0	.0	.0	1.8
TOT OBS	2	2	12	33	82	47	30	15	18	25	758	1024
TOT PCT	.2	.2	1.2	3.2	8.0	4.6	2.9	1.5	1.8	2.4	74.0	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE
OF CEILING HEIGHT (NM >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)				VSBY (NM)				VSBY (NM)			
	>10	>5	>2	>1	>1/2	>1/4	>50YD	>0	>10	>5	>2	>1
>6500	2.9	4.2	4.2	4.2	4.2	4.2	4.2	4.2	2.9	4.2	4.2	4.2
>5000	3.7	5.3	5.3	5.3	5.3	5.3	5.3	5.3	3.7	5.3	5.3	5.3
>3500	5.9	8.3	8.3	8.3	8.3	8.3	8.3	8.3	5.9	8.3	8.3	8.3
>2000	8.5	12.7	13.0	13.0	13.0	13.0	13.0	13.0	8.5	12.7	13.0	13.0
>1000	14.3	20.4	21.0	21.0	21.0	21.0	21.0	21.0	14.3	20.4	21.0	21.0
>600	16.5	23.5	24.1	24.1	24.1	24.1	24.1	24.1	16.5	23.5	24.1	24.1
>300	17.0	24.5	25.3	25.3	25.3	25.3	25.3	25.3	17.0	24.5	25.3	25.3
>150	17.0	24.6	25.5	25.5	25.5	25.5	25.5	25.5	17.0	24.6	25.5	25.5
>0	17.1	24.7	25.6	25.6	25.6	25.6	25.6	25.6	17.1	24.7	25.6	25.6
TOTAL	176	254	263	263	263	263	264	264	176	254	263	263

TOTAL NUMBER OF OBS 1029

PCT FREQ NM <5/8 74.3

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

	0	1	2	3	4	5	6	7	8	9	TOTAL OBS
	28.3	14.8	13.4	10.8	5.3	5.6	5.9	7.1	8.7	.1	1098

PERIOD: (PRIMARY) 1932-1977
(OVER-ALL) 1872-1977

APRIL

AREA 0033 PUNTA NEGRA
6.45 81.1W

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.3	.2	*	.0	.0	.0	.1	.5	
	TOT %	.0	.0	.0	.3	.2	*	.0	.0	.0	.1	.5	
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.1	.1	.0	.0	.0	.0	.0	.1	
	TOT %	.0	.0	.0	.1	.1	.0	.0	.0	.0	.0	.1	
1<2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.1	.1	.0	.0	.0	.0	.0	.2	
	TOT %	.0	.0	.0	.1	.1	.0	.0	.0	.0	.0	.2	
2<5	PCP	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.1	
	NO PCP	.0	.0	.3	.6	.8	.1	.0	.0	.0	.1	2.0	
	TOT %	.0	.0	.3	.7	.8	.1	.0	.0	.0	.1	2.1	
5<10	PCP	.0	.0	.1	.1	.1	.0	.0	.0	.0	.0	.2	
	NO PCP	*	*	1.3	10.5	8.5	1.2	.4	.1	.0	.9	22.9	
	TOT %	*	*	1.4	10.6	8.5	1.2	.4	.1	.0	.9	23.1	
10+	PCP	.0	.0	.1	.1	.3	.0	.0	.0	.0	.0	.4	
	NO PCP	.3	.2	2.9	32.2	31.7	4.1	.6	.1	.0	1.4	73.5	
	TOT %	.3	.2	2.9	32.3	31.9	4.1	.6	.1	.0	1.4	73.9	
TOT OBS													1392
TOT PCT		.4	.3	4.6	44.0	41.7	5.4	1.0	.2	.0	2.4	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.2	.0	.0	.0	.0	.0	.1	.2	
	4-10	.0	.0	.0	.1	.2	*	.0	.0	.0	.0	.2	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.2	.2	*	.0	.0	.0	.1	.5	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.1	.1	.0	.0	.0	.0	.0	.1	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.1	.1	.0	.0	.0	.0	.0	.1	
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.1	.1	.0	.0	.0	.0	.0	.2	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.1	.1	.0	.0	.0	.0	.0	.2	
2<5	0-3	.0	.0	.1	.1	.4	*	.0	.0	.0	.1	.7	
	4-10	.0	.0	.1	.5	.4	.1	.1	.0	.0	.0	1.2	
	11-21	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.2	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.2	.7	.8	.1	.1	.0	.0	.1	2.1	
5<10	0-3	.0	.0	.2	.9	.6	.3	.1	.0	.0	.8	2.9	
	4-10	*	*	.7	6.4	5.2	.6	.2	*	.0	.0	13.3	
	11-21	.0	.0	.4	2.8	2.3	.2	*	*	.0	.0	5.7	
	22+	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1	
	TOT %	*	*	1.3	10.1	8.2	1.2	.4	*	.0	.8	22.0	
10+	0-3	.1	.1	.3	1.0	2.2	.5	.1	*	.0	1.4	5.7	
	4-10	.2	.2	1.7	18.8	21.3	3.1	.3	.1	.0	.0	45.6	
	11-21	.1	.0	.8	11.3	9.6	1.4	.2	*	.0	.0	23.4	
	22+	.0	.0	.0	.2	.1	.0	.0	.0	.0	.0	.3	
	TOT %	.4	.3	2.8	31.3	33.2	5.0	.7	.1	.0	1.4	75.1	
TOT OBS													1628
TOT PCT		.4	.3	4.3	42.4	42.6	6.3	1.1	.1	.0	2.4	100.0	

APRIL

PERIOD: (PRIMARY) 1932-1977
(OVER-ALL) 1872-1977AREA 0033 PUNTA NEGRA
6.45 81.1W

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NH >4/8) AND
OCCURRENCE OF NH <5/8 BY HOUR

HR (GMT)	000 149	150 299	300 399	400 499	500 599	600 699	700 799	800 899	900 999	1000 1099	1100 1199	1200 1299	1300 1399	1400 1499	1500 1599	1600 1699	1700 1799	1800 1899	TOTAL OBS
00003	.0	.0	.3	2.7	4.0	3.4	2.0	1.7	1.3	1.7	17.2	82.8	297						
06009	.0	.0	1.7	4.3	9.1	5.2	1.7	2.2	2.2	3.9	30.2	69.8	232						
12015	.4	.4	2.0	5.1	14.1	4.3	4.7	1.6	2.7	3.1	38.4	61.6	255						
18021	.4	.4	.7	.7	5.0	5.0	2.9	.4	.7	1.1	17.1	82.9	280						
TOT	2	2	12	33	83	47	30	15	18	25	267	797	1064						
PCT	.2	.2	1.1	3.1	7.8	4.4	2.8	1.4	1.7	2.3	25.1	74.9	100.0						

TABLE 11

PERCENT FREQUENCY VS BY (NH) BY HOUR

HR (GMT)	<1/2	1/2<1	1<2	2<3	3<4	4<5	5<6	6<7	7<8	8<9	9<10	10<11	11<12	12<13	13<14	14<15	15<16	16<17	17<18	18<19	19<20	20<21	21<22	22<23	23<24	TOTAL OBS
00003	.0	.2	.2	2.6	18.3	78.4	426																			
06009	.2	.0	.0	2.2	24.3	73.3	416																			
12015	1.1	.0	1.1	2.4	23.0	72.4	369																			
18021	.7	.2	.0	1.4	22.6	75.1	434																			
TOT	8	2	5	35	363	1232	1645																			
PCT	.5	.1	.3	2.1	22.1	74.9	100.0																			

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VS BY (NH) AND/OR
CEILING HGT (FEET, NH >4/8) BY HOUR

HR (GMT)	<150 <500	<600 <1	<1000 <5	1000+ AND 5+	NH <5/8 AND 5+	TOTAL OBS
00003	.0	.7	6.0	14.2	79.7	281
06009	.0	1.8	7.0	23.8	69.2	227
12015	.4	2.8	10.4	30.0	59.6	250
18021	.4	1.5	3.3	15.1	81.5	271
TOT	2	17	68	210	751	1029
PCT	.2	1.7	6.6	20.4	73.0	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
85/89	.0	.0	.0	.2	.2	.6	.0	.0	11	1.0
80/84	.0	.0	.0	.2	.5	2.6	2.3	.2	66	5.7
75/79	.0	.0	.0	.1	.6	7.5	12.3	4.5	288	25.0
70/74	.0	.0	.0	.0	.2	3.6	17.1	14.1	404	35.0
65/69	.0	.0	.0	.0	.2	.4	12.1	18.7	363	31.5
60/64	.0	.0	.0	.0	.0	.0	.2	1.6	21	1.8
TOTAL	0	0	0	5	19	170	507	452	1153	100.0
PCT	.0	.0	.0	.4	1.6	14.7	44.0	39.2		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.0	.0	.0	.6	.4	.*	.0	.0	.0	.0
.3	.0	.9	2.3	1.6	.3	.1	.1	.0	.1
.0	.2	2.1	12.0	8.8	1.2	.3	.0	.0	.4
.1	.0	1.5	15.2	15.4	2.0	.3	.1	.0	.5
.1	.1	.6	12.8	14.4	1.6	.3	.2	.0	1.4
.0	.1	.0	.9	.7	.1	.0	.0	.0	.0
.5	.3	5.1	43.8	41.3	5.3	1.0	.4	.0	2.4

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	90	81	79	72	66	64	60	72.1	494
06009	86	81	78	70	65	64	60	70.5	344
12015	86	83	80	71	65	63	62	71.5	446
18021	89	87	82	75	68	66	61	74.9	362
TOT	90	84	80	72	65	64	60	72.3	2046

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HR (GMT)	0-29	30-39	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	.0	.3	11.0	47.9	40.8	87	309
06009	.0	.3	.3	6.2	36.0	57.2	89	292
12015	.0	.0	1.6	8.8	48.7	40.9	87	308
18021	.0	1.3	3.8	34.1	46.3	14.7	81	320
TOT	0	5	19	188	551	466	86	1229

APRIL

PERIOD: (PRIMARY) 1932-1977
(OVER-ALL) 1872-1977

TABLE 17

AREA 0033 PUNTA NEGRA
6.45 81.1W

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	57 60	61 64	65 68	69 72	73 76	77 80	81 84	85 88	89 92	TOT	W FOG	WQ FOG
20/22	.0	.0	.0	.0	.1	.0	.0	.1	.0	2	.0	.2
17/19	.0	.0	.0	.2	.0	.1	.0	.0	.0	3	.0	.2
14/16	.0	.0	.0	.0	.1	.0	.1	.1	.0	3	.0	.2
11/13	.0	.0	.0	.0	.2	.3	.2	.1	.0	10	.0	.8
9/10	.0	.0	.2	.6	.5	.5	.2	.1	.1	29	.1	2.2
7/9	.0	.1	.4	.9	1.2	.8	.1	.2	.0	46	.1	3.5
5	.0	.0	.5	.7	.9	.8	.2	.2	.0	41	.0	3.2
3	.0	.0	.7	1.6	1.3	.5	.2	.1	.1	59	.2	4.5
4	.0	.2	2.1	3.1	1.1	.2	.4	.1	.0	92	.5	6.8
3	.0	.1	2.8	3.1	1.9	.9	.1	.0	.0	113	.2	8.7
2	.0	.7	4.9	4.2	2.7	1.4	.5	.2	.0	185	.2	14.3
1	.0	.2	4.8	4.6	3.6	1.2	.3	.1	.0	188	.2	14.6
0	.0	.5	3.1	4.4	3.8	2.0	.1	.0	.0	177	.4	13.5
-1	.0	.2	1.6	2.4	3.2	2.1	.4	.0	.0	126	.3	9.6
-2	.1	.1	.9	1.5	1.6	2.1	.2	.0	.0	83	.1	6.4
-3	.0	.0	.2	.8	1.3	1.0	.0	.0	.0	41	.0	3.2
-4	.1	.1	.3	1.1	.6	.7	.1	.0	.0	36	.0	3.0
-5	.0	.0	.2	.5	.3	.1	.0	.0	.0	19	.0	1.5
-6	.0	.0	.0	.2	.2	.1	.0	.0	.0	6	.0	.5
-7/-8	.0	.0	.1	.3	.1	.2	.1	.0	.0	9	.0	.7
-9/-10	.0	.0	.2	.0	.0	.1	.0	.0	.0	4	.0	.3
TOTAL	2	25	292	386	317	196	40	14	2	1274	2.1	97.9
PCT	.2	2.0	22.9	30.3	24.9	15.4	3.1	1.1	.2	100.0	2.1	97.9

PERIOD: (OVER-ALL) 1963-1977

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	N 22-33	34-47	48+	PCT	1-3	4-10	11-21	NE 22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.4	.0	.0	.0	.0	.4
3-4	.0	.2	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.2	.0	.0	.0	.0	.2	.0	.4	.0	.0	.0	.0	.4

HGT	1-3	4-10	11-21	E 22-33	34-47	48+	PCT	1-3	4-10	11-21	SE 22-33	34-47	48+	PCT
<1	.0	.1	.0	.0	.0	.0	.1	.4	1.8	.2	.0	.0	.0	2.5
1-2	.1	2.1	.8	.0	.0	.0	3.0	.1	15.8	6.6	.0	.0	.0	22.5
3-4	.0	.3	.5	.0	.0	.0	.8	.3	7.3	10.0	.0	.0	.0	17.6
5-6	.0	.5	.0	.0	.0	.0	.5	.0	1.5	2.7	.0	.0	.0	4.1
7	.0	.0	.1	.0	.0	.0	.1	.0	.0	.3	.0	.0	.0	.3
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.2
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.1	3.1	1.5	.0	.0	.0	4.7	.8	26.3	20.1	.0	.0	.0	47.3

PERIOD: (OVER-ALL) 1963-1977

APRIL

AREA 0033 PUNTA NFGRA
6.45 81.1W

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	SW	22-33	34-47	48+	PCT
<1	.1	1.6	.1	.0	.0	.0	1.9	*	*	.0	.0	.0	.0	.0	.1
1-2	.7	13.8	3.4	.0	.0	.0	14.0	*	2.0	.4	.0	.0	.0	.0	2.5
3-4	.3	8.4	5.9	.0	.0	.0	14.6	.0	.6	.6	.0	.0	.0	.0	1.2
5-6	.4	1.1	1.4	.2	.0	.0	3.3	.2	.0	.5	.0	.0	.0	.0	.7
7	.0	.2	.9	.2	.0	.0	1.3	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.1	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.1	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.5	25.1	12.3	.4	.0	.0	39.3	.3	2.7	1.5	.0	.0	.0	.0	4.4

HGT	1-3	4-10	11-21	W	22-33	34-47	48+	PCT	1-3	4-10	11-21	NW	22-33	34-47	48+	PCT	TOTAL PCT
<1	.1	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.2	.3	.0	.0	.0	.0	.5	.0	.2	.0	.0	.0	.0	.0	.2	.2
3-4	.0	.4	.1	.0	.0	.0	.0	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.1	.6	.5	.0	.0	.0	.0	1.2	.0	.2	*	.0	.0	.0	.0	.2	97.8

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT DBS
<1	3.1	3.7	.4	.0	.0	.0	7.2	
1-2	1.4	34.0	11.7	.0	.0	.0	47.1	
3-4	.8	17.1	16.9	.0	.0	.0	34.8	
5-6	.6	3.1	4.7	.2	.0	.0	8.6	
7	.0	.2	1.4	.2	.0	.0	1.8	
8-9	.0	.0	.4	.0	.0	.0	.4	
10-11	.0	.0	.2	.0	.0	.0	.2	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	5.8	58.2	35.6	.4	.0	.0	100.0	514

PERIOD: (OVER-ALL) 1949-1977

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT	
<6	3.1	12.2	18.8	8.1	1.4	.5	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	390	3
6-7	.0	1.6	11.0	8.6	2.6	.7	.6	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	224	4
8-9	.0	1.2	2.8	5.0	2.4	.9	.8	.1	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	119	5
10-11	.0	1.8	.9	1.1	1.2	.3	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	50	5
12-13	.0	.0	1.1	.5	.3	.1	.0	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	20	5
>13	.0	.0	.0	1.1	.5	.1	.3	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	19	7
INDET	1.4	2.1	1.6	1.1	.6	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	62	3
TOTAL	39	168	320	226	79	25	18	5	4	0	0	0	0	0	0	0	0	0	0	.0	884	4
PCT	4.4	19.0	36.2	25.6	8.9	2.8	2.0	.6	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	

PERIOD: (PRIMARY) 1931-1977
(OVER-ALL) 1899-1977

MAY

AREA 0033 PUNTA NEGRA
6.45 81.1W

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THOR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST SNOW	ND SIG WEA
N	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
E	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.0	.0	6.1	.0	91.9
SE	.3	.4	.9	.0	.0	.0	.0	1.4	.3	.0	2.6	*	3.7	.0	91.9
S	.0	.1	.7	.0	.0	.0	.0	.8	.2	.0	1.4	.1	7.4	.0	90.1
SW	1.2	.0	.0	.0	.0	.0	.0	1.2	.0	.0	4.0	1.2	2.2	.0	91.4
W	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
NW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	5.6	.0	.0	.0	.0	.0	.0	5.6	.0	.0	27.8	.0	16.7	.0	50.0
TOT PCT	.3	.2	.7	.0	.0	.0	.0	1.2	.2	.0	2.5	.2	5.3	.0	90.7
TOT OBS:	1287														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA								
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THOR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	ND SIG WEA
00003	.0	.3	.3	.0	.0	.0	.0	.6	.0	.0	2.2	.0	5.5	.0		90.7
06009	.7	.3	1.3	.0	.0	.0	.0	2.0	.7	.0	4.0	.0	4.0	.0		89.2
12015	.6	.3	.9	.0	.0	.0	.0	1.7	.0	.0	3.5	.3	2.9	.0		91.5
18021	.0	.0	.3	.0	.0	.0	.0	.3	.3	.0	.9	.6	7.8	.0		90.1
TOT PCT	.3	.2	.7	.0	.0	.0	.0	1.2	.2	.0	2.6	.2	5.3	.0		90.4
TOT OBS:	1298															

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							48+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)					
	0-3	4-10	11-21	22-33	34-47	00	03					06	09	12	15	18	21
N	.2	.0	.0	.0	.0	.0	.2	2.6	.0	.0	.2	1.5	.4	.0	.0	.0	.0
NE	.0	.3	.1	.0	.0	.0	.5	6.1	.0	.0	.5	.8	.8	.0	.6	.4	.4
E	.3	2.4	1.1	.0	.0	.0	3.8	8.8	1.9	1.6	3.8	5.3	4.4	2.3	4.9	2.9	2.9
SE	1.7	27.6	16.2	.3	.0	.0	45.8	9.8	37.8	64.5	37.8	42.4	52.9	72.7	52.0	42.1	42.1
S	2.4	23.5	13.3	.5	.0	.0	39.7	9.8	47.5	26.6	44.5	38.0	33.5	22.7	36.5	41.5	41.5
SW	.5	4.0	2.4	.1	.0	.0	7.0	9.6	10.3	7.3	7.4	8.2	4.6	2.3	4.8	12.2	12.2
W	.1	.2	.2	.0	.0	.0	.5	8.7	.7	.0	.9	.0	.2	.0	.2	.8	.8
NW	.1	.4	.1	.0	.0	.0	.6	6.6	1.0	.0	.7	.0	.2	.0	.7	.5	.5
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	1.9	.0	.0	.0	.0	.0	1.9	.0	.7	.0	4.2	3.8	2.8	.0	.4	.0	.0
TOT OBS	147	1142	674	18	1	0	2022		9.5	4.7	31	407	131	425	446	446	121
TOT PCT	7.3	58.5	33.3	.9	.0	.0		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)					TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)				
	0-6	7-16	17-27	28-40	41+				00 03	06 09	12 15	18 21	
N	.2	.0	.0	.0	.0	.0	.2	2.6	.0	.6	.4	.0	.0
NE	.3	.1	.0	.0	.0	.0	.5	6.1	.0	.6	.7	.5	.5
E	1.4	2.2	.2	.0	.0	.0	3.8	8.8	1.9	4.2	4.2	4.5	4.5
SE	11.0	32.2	2.6	.0	.0	.0	45.8	9.8	39.7	38.9	54.8	49.9	49.9
S	10.9	25.5	3.2	.1	.0	.0	39.7	9.8	46.1	42.9	32.5	37.6	37.6
SW	2.0	4.5	.6	.0	.0	.0	7.0	9.6	10.0	7.6	4.4	6.3	6.3
W	.3	.2	.0	.0	.0	.0	.5	8.7	.7	.7	.2	.3	.3
NW	.4	.2	.0	.0	.0	.0	.6	6.6	.9	.6	.2	.5	.5
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	1.9	.0	.0	.0	.0	.0	1.9	.0	.7	4.1	2.6	.4	.4
TOT OBS	574	1313	133	2	0	2022		9.5	448	538	469	567	567
TOT PCT	28.4	64.9	6.6	.1	.0		100.0		100.0	100.0	100.0	100.0	100.0

AD-A064 337

NAVAL WEATHER SERVICE DETACHMENT ASHEVILLE N C
SUMMARY OF SYNOPTIC METEOROLOGICAL OBSERVATIONS (SSMO) SOUTH AM--ETC(U)
FEB 79

F/G 4/2

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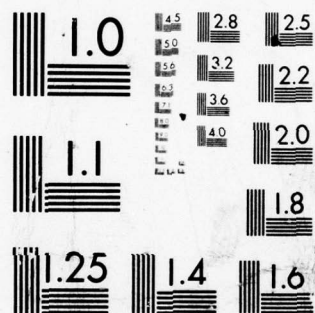
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MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963-A

PERIOD: (PRIMARY) 1931-1977
(OVER-ALL) 1885-1977

MAY

AREA 0033 PUNTA NEGRA
6.45 81.1M

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)										
HOUR	CALM	WIND SPEED (KNOTS)					MEAN	PCT FREQ	TOTAL OBS	
		1-3	4-10	11-21	22-33	34-47				
0000Z	.7	4.9	32.5	41.3	.7	.0	.0	10.1	100.0	448
0600Z	4.1	6.1	62.8	26.0	.7	.2	.0	8.8	100.0	536
1200Z	2.6	3.3	39.7	31.6	.9	.0	.0	9.3	100.0	469
1800Z	.4	4.9	58.0	35.4	1.2	.0	.0	9.8	100.0	567
TOT	.9	108	1182	674	18	1	0	9.5		2022
PCT	1.9	5.3	58.5	33.3	.9	*	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS) BY WIND DIRECTION						MEAN CLOUD COVER
WIND DIR	0-2	3-4	5-7	8 & NBSCN	TOTAL OBS	
N	.0	.0	.1	.1		7.1
NE	.2	.0	*	*		2.0
E	.6	.4	.8	1.0		5.1
SE	13.5	9.1	12.0	13.3		4.6
S	15.4	6.3	8.8	10.5		4.2
SW	2.9	.9	1.3	.7		3.1
W	.1	.0	.1	.1		2.4
NW	.4	.0	.1	*		2.4
VAR	.0	.0	.0	.0		.0
CALM	.2	.1	.3	.6		5.7
TOT OBS	337	170	238	268	1013	4.4
TOT PCT	33.3	16.8	23.5	26.4	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8) AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION													
000	150	300	600	1000	2000	3500	5000	6500	8000+	NH <5/8	TOTAL	ANY HGT TOTAL OBS	
149	299	599	999	1999	3499	4999	6499	7999					
.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.1		
.0	.0	.0	*	*	.0	.0	.0	.0	.0	.0	.2		
.0	.0	.0	.3	.7	.3	.0	.0	.0	.0	.2	1.2		
.3	.3	.7	6.1	6.3	2.9	2.6	.4	.3	.9	26.9			
.3	.2	1.0	3.1	4.8	3.1	1.1	.3	.4	1.2	25.6			
.0	.0	.1	.2	.5	.2	.1	.0	.0	.0	4.3			
.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.3			
.0	.0	.0	*	.0	.0	.0	.0	.0	.0	.5			
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0			
.0	.0	.1	.2	.3	.2	.0	.0	.0	.0	.4			
.7	.5	2.0	10.1	12.8	6.7	3.9	.9	.7	2.3	59.4	1013		

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE
OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)							
	>10	>5	>2	>1	>1/2	>1/4	>50YD	>0
NH >6500	2.3	2.9	3.0	3.0	3.0	3.0	3.0	3.0
NH >5000	3.1	3.8	3.9	3.9	3.9	3.9	3.9	3.9
NH >3500	6.1	7.6	7.8	7.8	7.9	7.9	7.9	7.9
NH >2000	11.0	14.1	14.5	14.5	14.6	14.6	14.6	14.6
NH >1000	20.8	26.0	27.0	27.0	27.1	27.1	27.1	27.1
NH >600	26.9	35.8	37.2	37.2	37.3	37.3	37.3	37.3
NH >300	28.0	37.4	39.2	39.2	39.3	39.3	39.3	39.3
NH >150	28.4	37.9	39.6	39.6	39.7	39.7	39.7	39.7
NH >0	28.8	38.4	40.2	40.2	40.3	40.3	40.4	40.4
TOTAL	292	389	408	408	409	409	410	410

TOTAL NUMBER OF OBS: 1014

PCT FREQ NH <5/8: 59.6

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	OBSCD	TOTAL OBS
21.7	13.1	9.8	8.3	5.9	4.8	6.3	8.2	21.9	.1	1087

PERIOD: (PRIMARY) 1931-1977
(OVER-ALL) 1885-1977

MAY

TABLE 8

AREA 0033 PUNTA NEGRA
6.45 81.1W

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.1	.1	.1	.0	.0	.0	.0	.0	.2
	TOT %	.0	.0	.0	.1	.1	.1	.0	.0	.0	.0	.0	
1/2<1	PCP	.0	.0	.0	*	.1	.0	.0	.0	.0	.0	.0	.1
	NO PCP	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.1
	TOT %	.0	.0	.0	*	.1	.0	.0	.0	.0	.0	.0	.2
1<2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2<5	PCP	.0	.0	.0	.1	.0	.1	.0	.0	.0	.1	.2	
	NO PCP	.0	.1	.0	1.6	.8	.2	.0	.0	.0	.5	3.1	
	TOT %	.0	.1	.0	1.7	.8	.3	.0	.0	.0	.5	3.3	
5<10	PCP	.0	.0	.0	.3	.2	.0	.0	.0	.0	.0	.5	
	NO PCP	.0	.2	.7	9.8	10.7	1.3	.2	.2	.0	.4	23.4	
	TOT %	.0	.2	.7	10.0	10.9	1.3	.2	.2	.0	.4	23.9	
10+	PCP	.0	.0	.0	.3	.1	.0	.0	.0	.0	.0	.4	
	NO PCP	.1	.1	2.1	35.5	28.3	4.7	.3	.4	.0	.5	72.0	
	TOT %	.1	.1	2.1	35.8	28.4	4.7	.3	.4	.0	.5	72.4	
TOT OBS													1287
TOT PCT		.1	.4	2.9	47.0	40.3	6.3	.5	.6	.0	1.4	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.1	*	.1	.0	.0	.0	.0	.0	.2
	11-21	.0	.0	.0	*	*	.0	.0	.0	.0	.0	.0	.1
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.1	.1	.1	.0	.0	.0	.0	.0	.3
1/2<1	0-3	.0	.0	.0	*	*	.0	.0	.0	.0	.0	.0	.1
	4-10	.0	.0	.0	.1	.1	.0	.0	.0	.0	.0	.0	.1
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.1	.1	.0	.0	.0	.0	.0	.0	.2
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2<5	0-3	.0	.0	.0	.1	.1	.0	.0	.0	.0	.5	.7	
	4-10	.0	.0	.0	.9	.5	.2	.0	.0	.0	.0	1.5	
	11-21	.0	.1	.0	.4	.3	.0	.0	.0	.0	.0	.8	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.1	.0	1.4	.9	.2	.0	.0	.0	.5	3.0	
5<10	0-3	.0	.0	.0	.4	.9	.1	.0	.0	.0	.5	1.9	
	4-10	.0	.1	.3	6.1	6.1	.7	.1	.1	.0	.0	13.6	
	11-21	.0	.0	.3	2.6	2.7	.4	.1	.0	.0	.0	6.1	
	22+	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1	
	TOT %	.0	.1	.6	9.1	9.8	1.2	.2	.1	.0	.5	21.7	
10+	0-3	.1	.1	.2	.9	1.4	.4	.1	.1	.0	.8	4.1	
	4-10	*	.1	1.2	20.1	17.8	3.1	.1	.3	.0	.0	42.8	
	11-21	.0	*	.6	13.4	11.1	2.0	.1	.1	.0	.0	27.2	
	22+	.0	.0	.0	.4	.2	.1	*	.0	.0	.0	.7	
	TOT %	.1	.2	2.1	34.8	30.6	5.6	.4	.4	.0	.8	74.8	
TOT OBS													1549
TOT PCT		.1	.4	2.7	45.5	41.3	7.1	.5	.5	.0	1.7	100.0	

PERIOD: (PRIMARY) 1931-1977
(OVER-ALL) 1885-1977

MAY

AREA 0033 PUNTA NEGRA
6.45 81.1W

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET) NH $\geq 4/8$ AND
OCCURRENCE OF NH $\leq 3/8$ BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH $\leq 3/8$ ANY HGT	TOTAL OBS
00003	.4	.0	.7	12.7	10.1	4.5	4.5	.7	.4	1.9	36.0	64.0	267
06009	.0	.9	3.9	10.4	14.3	6.1	3.0	.4	.4	1.7	41.1	58.9	231
12015	1.4	1.1	2.8	10.0	17.8	7.8	5.0	2.1	1.1	2.5	51.6	48.4	281
18021	.7	.0	.4	6.2	7.7	7.3	2.6	.4	.7	2.6	28.6	71.4	273
TOT PCT	7 .7	5 .5	20 1.9	103 9.8	131 12.5	68 6.5	40 3.8	10 1.0	7 .7	23 2.2	414 39.4	638 60.6	1052 100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.0	.0	.0	3.5	24.7	71.8	373
06009	.2	.2	.0	2.7	20.4	76.3	401
12015	.5	.5	.0	4.5	19.5	75.0	380
18021	.2	.2	.0	1.7	22.2	75.6	406
TOT PCT	4 .3	4 .3	0 .0	48 3.1	338 21.7	1166 74.7	1560 100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR
CEILING HGT (FEET) NH $\geq 4/8$ BY HOUR

HOUR (GMT)	<150 CEILING	<600 CEILING	<1000 CEILING	1000+ AND/OR	NH $\leq 3/8$ AND 5+	TOTAL OBS
00003	.4	1.1	17.6	21.1	61.3	261
06009	.0	5.0	18.1	26.2	55.7	221
12015	1.5	6.3	20.2	34.6	45.2	272
18021	.8	1.2	9.2	21.9	68.8	260
TOT PCT	7 .7	34 3.4	165 16.3	264 26.0	585 57.7	1014 100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
85/89	.0	.0	.0	.0	.0	.1	.0	.0	1	.1
80/84	.0	.0	.0	.1	.1	.7	.5	.1	17	1.4
75/79	.0	.0	.0	.1	.6	5.1	6.2	1.0	155	13.1
70/74	.0	.0	.0	.2	.8	6.8	17.0	11.0	433	36.3
65/69	.0	.0	.0	.0	.1	1.1	14.6	22.8	458	38.5
60/64	.0	.0	.0	.0	.0	.4	2.4	7.6	123	10.4
TOTAL	.0	.0	.0	.4	19	169	483	512	1187	100.0
PCT	.0	.0	.0	.3	1.6	14.2	40.7	43.1		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.0	.0	.0	.1	.0	.0	.0	.0	.0	.0
.0	.0	.0	.8	.5	.0	.1	.0	.0	.0
.0	.0	.3	8.2	4.1	.4	.1	.0	.0	.1
.0	.1	.8	18.6	14.6	1.9	.1	.2	.0	.2
.1	.2	.9	17.3	16.3	2.8	.3	*	.0	.8
.0	.1	.2	4.7	4.4	.4	.0	.1	.0	.5
.1	.4	2.2	49.7	39.8	5.6	.5	.3	.0	1.5

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	90%	5%	1%	MIN	MEAN	TOTAL OBS
00003	86	80	76	70	64	62	60	69.8	451
06009	85	78	75	68	63	60	59	68.1	350
12015	84	79	76	68	63	61	60	69.1	469
18021	88	82	79	72	65	64	61	72.2	353
TOT	88	81	77	69	64	62	59	69.8	2023

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-39	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	.0	.5	9.1	50.2	40.1	87	309
06009	.0	.0	.7	6.4	34.6	58.2	89	280
12015	.0	.6	1.5	9.9	33.7	54.2	88	332
18021	.0	.6	4.1	29.3	45.7	20.2	82	317
TOT	0	4	22	172	509	531	87	1238

PERIOD: (PRIMARY) 1931-1977
(OVER-ALL) 1885-1977

MAY

AREA 0033 PUNTA NEGRA
6.45 81.1W

TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	61 64	65 68	69 72	73 76	77 80	81 84	85 88	TOT	W FOG	NO FOG
17/19	.0	.0	.0	.1	.0	.1	.0	2	.0	.2
14/16	.0	.0	.0	.1	.1	.1	.0	3	.0	.3
11/13	.0	.1	.1	.3	.3	.0	.0	9	.0	.8
9/10	.0	.3	.2	.3	.4	.1	.0	16	.1	1.3
7/8	.0	.2	.3	1.5	.5	.0	.1	31	.0	2.6
6	.0	.2	.7	.9	.2	.0	.0	23	.1	1.8
5	.1	.5	.8	.8	.4	.0	.0	32	.0	2.7
4	.3	.8	1.8	1.7	.8	.0	.1	66	.0	5.5
3	.5	2.7	2.2	1.3	.8	.0	.0	89	.2	7.3
2	1.4	4.8	4.1	1.7	.5	.2	.0	152	.4	12.3
1	2.3	4.8	4.1	2.6	.1	.0	.0	165	.8	12.9
0	1.8	5.2	4.6	3.1	.2	.3	.1	181	.5	14.6
-1	.8	2.8	2.6	2.6	.6	.1	.0	114	.2	9.4
-2	.8	1.8	2.9	1.9	.8	.1	.0	99	.4	7.9
-3	.7	1.8	1.5	1.4	.3	.1	.0	68	.1	5.6
-4	.3	.7	1.8	2.2	.4	.3	.0	66	.0	5.5
-5	.2	.6	.8	.8	.3	.1	.0	33	.0	2.8
-6	.0	.7	.8	.2	.0	.0	.0	19	.1	1.5
-7/-8	.1	.4	.3	.7	.0	.0	.0	18	.0	1.5
-9/-10	.1	.4	.0	.0	.0	.0	.0	6	.0	.5
-11/-13	.0	.3	.0	.0	.0	.0	.0	3	.0	.3
-14/-16	.1	.0	.0	.0	.0	.0	.0	1	.0	.1
-17/-19	.0	.1	.0	.0	.0	.0	.0	1	.0	.1
TOTAL	110	348	354	290	15	3		1197	34	1163
PCT	9.2	29.1	29.6	24.2	6.4	1.3	.3	100.0	2.8	97.2

PERIOD: (OVER-ALL) 1963-1977

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.2	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.2
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.2	.0	.0	.0	.0	.0	.2	.0	.0	.2	.0	.0	.0	.2

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.2	.0	.0	.0	.2	.9	2.1	.0	.0	.0	.0	2.9
1-2	.0	.5	.0	.0	.0	.0	.5	.8	12.4	2.9	.0	.0	.0	16.1
3-4	.0	.1	.3	.0	.0	.0	.5	.4	10.2	9.8	.6	.0	.0	21.0
5-6	.0	.0	.3	.0	.0	.0	.3	.0	1.1	3.4	.4	.0	.0	6.9
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.5	.2	.0	.0	1.7
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.7	.9	.0	.0	.0	1.5	2.1	25.8	19.5	1.1	.0	.0	48.6

PERIOD: (OVER-ALL) 1963-1977

MAY

AREA 0033 PUNTA NEGRA
6.45 81.1W

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.8	1.6	.0	.0	.0	.0	2.3	.1	.0	.0	.0	.0	.0	.1	
1-2	2.1	11.1	4.6	.0	.0	.0	17.9	.1	1.7	.3	.0	.0	.0	2.2	
3-4	.2	8.4	5.9	.0	.0	.0	14.5	.0	1.1	1.1	.0	.0	.0	2.2	
5-6	.0	1.3	3.1	.1	.0	.0	4.5	.0	.0	1.0	.0	.0	.0	1.0	
7	.0	.0	.4	.2	.0	.0	1.0	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.4	.0	.0	.0	.0	.4	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.1	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	3.1	22.8	14.6	.3	.0	.0	40.8	.2	2.9	2.3	.0	.0	.0	5.5	

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1-2	.0	.5	.0	.0	.0	.0	.5	.0	.6	.0	.0	.0	.0	.6	
3-4	.2	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.2	.5	.0	.0	.0	.0	.7	.0	.6	.0	.0	.0	.0	.6	98.1

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	4.0	3.6	.2	.0	.0	.0	7.8	
1-2	3.4	26.8	8.0	.0	.0	.0	38.2	
3-4	.8	19.8	16.9	.6	.0	.0	38.0	
5-6	.0	2.5	9.7	.6	.0	.0	12.7	
7	.0	.0	2.3	.4	.0	.0	2.7	
8-9	.0	.4	.0	.0	.0	.0	.4	
10-11	.0	.0	.2	.0	.0	.0	.2	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	6.2	53.0	37.3	1.5	.0	.0	100.0	526

PERIOD: (OVER-ALL) 1949-1977

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	2.4	10.5	18.0	6.9	1.0	.3	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	340
6-7	.0	2.0	6.8	10.4	2.4	.2	.3	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	193
8-9	.0	.5	2.8	5.7	4.9	1.9	.2	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	138
10-11	.0	.8	.7	2.2	2.4	1.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	64
12-13	.0	.0	1.9	.7	.5	.2	.3	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	35
>13	.0	.0	.0	.6	.1	.0	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	9
INDET	2.1	2.6	4.1	.5	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	80
TOTAL	39	140	294	231	99	33	13	8	1	0	1	0	0	0	0	0	0	0	0	0	859
PCT	4.5	16.3	34.2	26.9	11.5	3.8	1.5	.9	.1	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0

PERIOD: (PRIMARY) 1930-1977
(OVER-ALL) 1872-1977

JUNE

AREA 0033 PUNTA NEGRA
6.55 81.1W

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA						
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THOR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST SIG WEA
N	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
E	.0	2.7	.0	.0	.0	.0	.0	2.7	.0	.0	.0	.0	.0	97.3
SE	*	*	2.9	.0	.0	.0	.0	3.0	.9	.0	2.5	.2	3.8	89.7
S	.3	.0	1.6	.0	.0	.0	.0	1.9	.4	.0	1.6	.0	4.2	91.9
SW	.0	.0	1.8	.0	.0	.0	.0	1.8	.0	.0	.0	.0	1.1	97.0
W	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
NW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	3.7	.0	7.4	.0	7.4	81.5
TOT PCT	.2	.1	2.1	.0	.0	.0	.0	2.3	.6	.0	2.0	.1	3.8	91.2
TOT OBS:	1268													

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA						
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THOR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST SIG WEA
00003	.0	.0	1.3	.0	.0	.0	.0	1.3	.3	.0	1.6	.0	4.7	.3 91.8
06009	.0	.0	3.7	.0	.0	.0	.0	3.7	.3	.0	.0	.0	2.4	.0 93.6
12015	.6	.3	3.1	.0	.0	.0	.0	4.0	.6	.0	2.8	.0	3.4	.0 89.2
18021	.0	.0	.3	.0	.0	.0	.0	.3	1.2	.0	3.5	.3	4.6	.0 90.2
TOT PCT	.2	.1	2.0	.0	.0	.0	.0	2.3	.6	.0	2.0	.1	3.8	.1 91.1
TOT OBS:	1283													

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)						
	0-3	4-10	11-21	22-33	34-47	48+	00				03	06	09	12	15	18	21
N	.2	.2	.0	.0	.0	.0	.0	.4	4.3	.5	.0	.0	.8	1.0	.0	.2	.0
NE	.1	.2	.0	.0	.0	.0	.0	.3	3.0	.0	.0	.1	.8	1.1	.0	.0	.0
E	.1	2.0	.9	.0	.0	.0	.0	3.0	8.7	1.6	.0	2.5	2.0	4.0	3.6	4.8	1.1
SE	1.9	23.1	14.6	.3	.0	.0	.0	40.0	9.8	34.2	59.2	35.5	37.1	45.2	57.1	43.4	32.1
S	2.8	27.3	14.7	.9	.0	.0	.0	45.6	9.7	52.2	39.5	48.9	41.7	38.4	35.1	45.1	50.5
SW	.6	4.6	2.7	.1	.0	.0	.0	7.0	10.4	8.0	1.3	9.1	11.5	4.5	4.2	4.6	14.1
W	.1	.7	.3	.0	.0	.0	.0	1.1	8.3	1.5	.0	1.5	2.0	1.1	.0	.5	1.1
NW	.0	.1	.0	.0	.0	.0	.0	.1	9.2	.3	.0	.1	.0	.0	.0	.0	.0
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	2.5							2.5	.0	1.8	.0	2.3	4.0	4.8	.0	1.5	1.1
TOT OBS	162	1108	644	26	0	0	1940		9.5	393	38	387	124	398	42	466	92
TOT PCT	8.4	57.1	33.2	1.3	.0	.0		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)					TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)				
	0-6	7-16	17-27	28-40	41+				00	03	06	12	18
N	.3	.1	.0	.0	.0	.4	4.3	.5	.2	.9	.2		
NE	.2	.1	.0	.0	.0	.3	3.0	.0	.2	1.0	.0		
E	1.1	1.8	.1	.0	.0	3.0	8.7	1.3	2.4	3.9	4.2		
SE	10.4	26.8	2.7	.0	.0	40.0	9.8	36.4	35.9	46.4	41.5		
S	13.3	28.9	3.4	.1	.0	45.6	9.7	51.1	47.2	38.1	46.0		
SW	1.5	4.5	.9	.0	.0	7.0	10.4	7.4	9.7	4.4	6.1		
W	.6	.5	.1	.0	.0	1.1	8.3	1.4	1.6	1.0	.6		
NW	.0	.1	.0	.0	.0	.1	9.2	.2	.0	.0	.0		
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
CALM	2.5					2.5	.0	1.8	2.7	4.3	1.4		
TOT OBS	581	1217	140	2	0	1940		431	511	440	558		
TOT PCT	29.9	62.7	7.2	.1	.0		100.0	100.0	100.0	100.0	100.0		

PERIOD: (PRIMARY) 1930-1977
(OVER-ALL) 1872-1977

JUNE

AREA 0033 PUNTA NEGRA
6.55 81.1W

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)										
HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)			48+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47				
0000Z	1.6	3.7	52.4	41.1	1.2	.0	.0	10.2	100.0	431
0600Z	2.7	7.8	58.7	28.6	2.2	.0	.0	9.0	100.0	511
1200Z	4.3	5.2	59.8	29.8	.9	.0	.0	9.1	100.0	440
1800Z	1.4	6.3	57.2	34.1	1.1	.0	.0	9.6	100.0	558
TOT	48	114	1108	644	26	0	0	9.5		1940
PCT	2.5	5.9	57.1	33.2	1.3	.0	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS) BY WIND DIRECTION						MEAN CLOUD COVER
WIND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	
N	.1	.0	.1	.1		5.6
NE	.0	.0	.1	.*		7.2
E	.4	.0	.6	1.4		6.3
SE	5.0	3.1	9.3	24.0		6.4
S	12.9	5.0	10.9	18.9		5.1
SW	1.6	.6	1.5	1.1		4.4
W	.1	.0	.2	.4		6.3
NW	.0	.0	.0	.1		8.0
VAR	.0	.0	.0	.0		.0
CALM	.4	.1	.7	1.1		5.9
TOT OBS	201	86	228	461	976	5.7
TOT PCT	20.6	8.8	23.4	47.2	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH > 4/8) AND OCCURRENCE OF NH < 5/8 BY WIND DIRECTION												
000	150	300	600	1000	2000	3500	5000	6500	8000+	NH < 5/8 ANY HGT	TOTAL OBS	
149	299	599	999	1999	3499	4999	6499	7999				
.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.1		
.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0		
.0	.0	.0	.6	1.0	.2	.0	.0	.0	.0	.6		
.4	1.4	7.3	14.0	4.2	2.2	.0	.1	.5	11.4			
.3	.3	1.2	5.1	11.3	4.8	1.9	.1	.3	.4	22.1		
.0	.*	.1	.8	.7	.3	.0	.0	.*	.0	2.8		
.0	.0	.2	.0	.0	.0	.3	.0	.0	.0	.2		
.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0		
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
.1	.1	.0	.6	.1	.3	.1	.1	.1	.1	.8		
.4	.8	2.9	14.5	27.5	9.8	4.5	.3	.5	.9	37.1	976	
										100.0		

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE
OF CEILING HEIGHT (NH > 4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)							
	> 10	> 5	> 2	> 1	> 1/2	> 1/4	> 50YD	> 0
NH > 5000	.7	1.3	1.4	1.4	1.4	1.4	1.4	1.4
NH > 4000	.9	1.6	1.7	1.7	1.7	1.7	1.7	1.7
NH > 3000	3.6	5.9	6.2	6.2	6.2	6.2	6.2	6.2
NH > 2000	10.0	15.2	15.9	15.9	15.9	15.9	15.9	15.9
NH > 1000	30.2	42.3	43.6	43.6	43.6	43.6	43.6	43.6
NH > 400	39.9	56.2	57.8	57.8	57.9	58.1	58.1	58.1
NH > 200	41.1	58.8	60.6	60.6	60.7	60.9	60.9	60.9
NH > 150	41.3	59.1	61.4	61.4	61.5	61.7	61.7	61.7
NH > 0	41.4	59.4	61.7	61.7	61.9	62.1	62.1	62.1
TOTAL	409	587	610	610	612	614	614	614

TOTAL NUMBER OF OBS 928

PCT FREQ NH < 5/8 37.9

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	OBSCD	TOTAL OBS
13.0	6.7	6.1	5.1	6.3	5.3	5.9	10.8	40.6	.2	1062

PERIOD: (PRIMARY) 1930-1977
(OVER-ALL) 1872-1977

JUNE

AREA 0033 PUNTA NEGRA
6.55 81.1W

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2
	NO PCP	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.1	
	TOT %	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.1	
1/2<1	PCP	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1	.2
	NO PCP	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.1	
	TOT %	.0	.0	.0	.1	.1	.0	.0	.0	.0	.0	.1	
1<2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2
	NO PCP	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	
2<5	PCP	.0	.0	.0	.2	.2	.0	.0	.0	.0	.0	.3	2.4
	NO PCP	.0	.0	.1	1.3	.8	*	.0	.0	.0	.2	2.4	
	TOT %	.0	.0	.1	1.5	.9	*	.0	.0	.0	.2	2.8	
5<10	PCP	.0	.0	.0	.8	.5	*	.0	.0	.0	.0	1.3	27.2
	NO PCP	.0	.1	.6	11.3	13.6	.7	.2	.0	.0	.9	27.2	
	TOT %	.0	.1	.6	12.0	14.1	.7	.2	.0	.0	.9	28.5	
10+	PCP	.0	.0	.1	.3	.1	.1	.0	.0	.0	.0	.6	67.6
	NO PCP	.2	.0	1.6	27.2	32.4	4.6	.7	.1	.0	.9	67.6	
	TOT %	.2	.0	1.6	27.5	32.5	4.7	.7	.1	.0	.9	68.2	
TOT OBS													1266
TOT PCT		.2	.1	2.2	41.3	47.7	5.4	.8	.1	.0	2.1	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1	.1	.0
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1	.1	
1/2<1	0-3	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1	.1	.0
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.1	.1	.0	.0	.0	.0	.1	.2	
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.1	
	11-21	.0	.0	.0	.1	.2	.0	.0	.0	.0	.0	.3	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.3	.2	.0	.0	.0	.0	.0	.5	
2<5	0-3	.0	.0	.0	.1	.1	.0	.0	.0	.0	.2	.4	1.3
	4-10	.0	.0	*	.6	.5	.1	.0	.0	.0	.0	1.3	
	11-21	.0	.0	.0	.5	.1	.0	.0	.0	.0	.0	.7	
	22+	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.1	
	TOT %	.0	.0	*	1.3	.8	.1	.0	.0	.0	.2	2.4	
5<10	0-3	.1	.1	*	.7	1.1	*	.0	.0	.0	.8	2.9	14.8
	4-10	.0	.0	.6	6.4	7.2	.6	.1	.0	.0	.0	14.8	
	11-21	.0	.0	*	3.8	4.2	.2	.1	.0	.0	.0	8.3	
	22+	.0	.0	.0	.0	.6	*	.0	.0	.0	.0	.6	
	TOT %	.1	.1	.7	10.9	13.1	.8	.1	.0	.0	.8	26.5	
10+	0-3	.1	.0	*	1.0	1.6	.6	.0	.0	.0	1.1	4.5	39.3
	4-10	.2	.1	1.1	14.8	19.7	2.7	.7	.1	.0	.0	39.3	
	11-21	.0	.0	.5	10.8	11.7	2.7	.2	.0	.0	.0	26.0	
	22+	.0	.0	.0	.1	.4	.1	.0	.0	.0	.0	.5	
	TOT %	.3	.1	1.7	26.7	33.3	6.0	.9	.1	.0	1.1	70.3	
TOT OBS													1527
TOT PCT		.4	.2	2.4	39.3	47.5	7.0	1.0	.1	.0	2.2	100.0	

JUNE

PERIOD: (PRIMARY) 1936-1977
(OVER-ALL) 1872-1977AREA 0033 PUNTA NEGRA
6.55 81.1W

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NM >4/8) AND
OCCURRENCE OF NM <3/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NM <5/8 ANY MGT	TOTAL OBS
00003	.0	.8	3.2	11.6	28.4	8.0	2.4	.4	.8	.4	56.0	44.0	250
06009	.5	.5	1.8	12.4	21.6	8.3	1.8	.0	.0	1.8	46.6	51.4	218
12015	.4	1.1	3.0	22.0	31.7	7.5	8.2	.7	.4	.4	75.4	24.6	268
18021	.7	.7	2.9	10.3	26.0	13.9	4.4	.0	.7	1.1	60.8	39.2	273
TOT	4	8	28	143	274	96	44	3	5	9	614	395	1009
PCT	.4	.8	2.8	14.2	27.2	9.5	4.4	.3	.5	.9	60.9	39.1	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.6	.0	.3	1.9	25.9	71.3	363
06009	.0	.2	.7	1.0	24.0	74.0	404
12015	.0	.6	.0	3.9	32.0	63.5	359
18021	.0	.4	.7	3.4	25.2	70.7	416
TOT	2	3	7	39	411	1080	1542
PCT	.1	.2	.5	2.5	26.7	70.0	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR
CEILING MGT (FEET, NM >4/8) BY HOUR

HOUR (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND5+	NM <5/8 AND 5+	TOTAL OBS
00003	.0	4.9	17.1	40.4	42.4	245
06009	.5	3.3	15.4	34.1	50.5	214
12015	.4	4.6	30.0	47.5	22.4	263
18021	.8	4.5	18.4	45.5	36.1	266
TOT	4	43	203	418	367	988
PCT	.4	4.4	20.5	42.3	37.1	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
85/89	.0	.0	.0	.0	.1	.1	.0	.0	2	.2
80/84	.0	.0	.0	.0	.1	.6	.0	.0	8	.7
75/79	.0	.0	.0	.4	.4	1.2	1.1	.7	45	4.0
70/74	.0	.0	.0	1.1	5.1	12.0	7.6	.303	26.7	
65/69	.0	.0	.0	.0	.3	3.5	22.2	20.1	523	46.2
60/64	.0	.0	.0	.0	.4	8.6	12.9	249	22.0	
55/59	.0	.0	.0	.0	.0	.0	.3	3	.3	
TOTAL	0	0	0	5	22	136	499	471	1133	100.0
PCT	.0	.0	.0	.4	1.9	12.0	44.0	41.6		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
85/89	.0	.0	.0	.1	.0	*	.1	.0	.0	.0
80/84	.0	.0	.1	.2	.4	*	.0	.0	.0	.0
75/79	.0	.0	.2	1.3	1.9	.5	.0	.0	.0	.1
70/74	.1	.0	.7	12.3	12.1	1.1	.2	.0	.0	.4
65/69	.2	.1	1.3	18.8	22.3	2.2	.4	.1	.0	.8
60/64	.1	.1	.3	8.5	11.2	1.0	.1	.0	.0	.7
55/59	.0	.0	.0	.2	.1	.0	.0	.0	.0	.0
TOTAL	.4	.2	2.6	41.4	47.9	4.8	.8	.1	.0	1.9

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	81	76	74	67	62	61	60	67.6	428
06009	86	76	73	66	62	60	59	66.6	504
12015	79	74	73	66	62	60	59	66.8	434
18021	88	80	77	69	64	61	58	69.7	534
TOT	88	78	74	67	62	60	58	67.7	1900

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-39	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	.0	2.1	11.3	44.2	42.4	87	283
06009	.0	.0	.0	8.2	43.9	48.0	88	269
12015	.0	.0	2.0	7.6	38.7	51.7	88	302
18021	.0	1.7	3.3	20.5	49.5	25.1	83	303
TOT	0	5	22	139	510	481	86	1157

PERIOD: (PRIMARY) 1930-1977
(OVER-ALL) 1872-1977

JUNE

TABLE 17

AREA 0033 PUNTA NEGRA
6.5S 81.1W

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	57 60	61 64	65 68	69 72	73 76	77 80	81 84	85 88	TOT	N FOG	NO FOG
14/16	.0	.0	.0	.0	.0	.1	.0	.0	1	.0	.1
11/13	.0	.0	.0	.0	.2	.1	.1	.1	5	.0	.4
9/10	.0	.0	.0	.2	.1	.2	.1	.0	6	.0	.5
7/8	.0	.0	.3	.3	.6	.4	.0	.0	20	.0	1.7
6	.0	.1	.3	.0	.3	.3	.1	.1	20	.0	1.7
5	.0	.1	1.2	1.1	.8	.2	.0	.0	39	.1	3.2
4	.0	.4	2.2	2.1	.9	.0	.0	.0	66	.1	5.5
3	.0	1.1	4.3	2.1	.9	.1	.0	.0	101	.4	8.2
2	.0	1.5	5.1	2.0	1.4	.1	.0	.0	118	.3	9.7
1	.0	5.2	6.6	2.7	1.4	.3	.0	.0	191	.5	15.7
0	.2	2.9	7.5	2.8	1.4	.1	.1	.0	175	.2	14.7
-1	.1	3.1	5.6	3.3	1.3	.3	.0	.0	160	.3	13.4
-2	.2	1.5	2.9	2.6	.7	.2	.0	.0	94	.1	7.9
-3	.2	.7	1.6	2.0	.5	.1	.0	.0	60	.1	5.0
-4	.2	.8	1.4	.9	.3	.0	.0	.0	41	.1	3.4
-5	.0	1.0	1.3	.8	.3	.0	.0	.0	39	.0	3.3
-6	.1	.3	.4	.2	.2	.0	.0	.0	14	.0	1.2
-7/-8	.1	.1	.5	.5	.2	.0	.0	.0	16	.0	1.4
-9/-10	.0	.3	.1	.0	.0	.0	.0	.0	4	.0	.3
-11/-13	.0	.2	.0	.1	.0	.0	.0	.0	3	.0	.3
-14/-16	.0	.0	.2	.1	.0	.0	.0	.0	3	.0	.3
TOTAL	11	226	488	287	131	27	4	2	1176	2.1	115.1
PCT	.9	19.2	41.5	24.4	11.1	2.3	.3	.2	100.0	2.1	97.9

PERIOD: (OVER-ALL) 1963-1977

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

WGT	N						PCT	NE						PCT
	1-3	4-10	11-21	22-33	34-47	48+		1-3	4-10	11-21	22-33	34-47	48+	
<1	.2	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.2	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0

WGT	E						PCT	SE						PCT
	1-3	4-10	11-21	22-33	34-47	48+		1-3	4-10	11-21	22-33	34-47	48+	
<1	.0	.0	.0	.0	.0	.0	.0	.7	.8	.2	.0	.0	.0	1.7
1-2	.0	.9	.4	.0	.0	.0	1.2	.6	11.2	3.1	.0	.0	.0	14.9
3-4	.0	.0	.3	.0	.0	.0	.3	.4	9.6	8.8	.0	.0	.0	18.8
5-6	.0	.2	.2	.0	.0	.0	.4	.0	1.9	6.3	.0	.0	.0	8.5
7	.0	.0	.0	.0	.0	.0	.0	.0	.1	1.2	.0	.0	.0	1.3
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.1
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.2	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	1.3	.8	.0	.0	.0	2.1	1.7	23.6	19.9	.0	.0	.0	45.2

PERIOD: (OVER-ALL) 1963-1977

JUNE

AREA 0033 PUNTA NEGRA
6.55 81.1W

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.9	.4	.0	.0	.0	.0	1.3	.3	.0	.0	.0	.0	.0	.3
1-2	.8	12.8	4.7	.0	.0	.0	18.2	.1	1.1	1.2	.0	.0	.0	2.4
3-4	.0	5.4	9.3	.6	.0	.0	15.3	.2	.6	.8	.0	.0	.0	1.5
5-6	.0	1.0	5.4	.4	.0	.0	6.8	.0	.4	.4	.0	.0	.0	.8
7	.0	.4	1.3	.0	.0	.0	1.7	.0	.0	.1	.2	.0	.0	.3
8-9	.0	.2	.2	.0	.0	.0	.4	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.7	20.1	20.9	1.0	.0	.0	43.7	.5	2.0	2.5	.2	.0	.0	5.3

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.4	.0	.0	.0	.0	.4	.0	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.4	.2	.0	.0	.0	.6	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.6	.0	.0	.0	.6	.0	.2	.0	.0	.0	.0	.2	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.8	.8	.0	.0	.0	1.6	.0	.2	.0	.0	.0	.0	.2	98.2

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	4.4	1.6	.2	.0	.0	.0	6.3	
1-2	1.4	28.1	9.3	.0	.0	.0	38.8	
3-4	.0	15.8	19.2	.6	.0	.0	35.2	
5-6	.0	3.6	12.9	.4	.0	.0	17.0	
7	.0	.4	2.6	.2	.0	.0	3.2	
8-9	.0	.2	.2	.0	.0	.0	.4	
10-11	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.2	.0	.0	.0	.0	.2	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	6.5	47.9	44.4	1.2	.0	.0	100.0	495

PERIOD: (OVER-ALL) 1949-1977

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	2.0	10.9	19.2	6.5	1.2	.5	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	330	3
6-7	.0	.5	7.8	9.9	4.9	1.7	1.1	.5	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	217	5
8-9	.0	.2	1.7	5.3	4.9	1.5	1.0	.2	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	125	6
10-11	.0	.2	.9	1.3	1.8	1.0	.4	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	48	6
12-13	.0	.0	.9	.7	.2	.5	.2	.4	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	28	7
14-15	.0	.0	.0	.1	.7	.6	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	15	8
16-17	1.2	1.2	1.3	2.0	.6	.1	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	55	4
TOTAL	26	107	260	211	118	48	27	10	9	0	0	0	0	0	0	0	0	0	0	816	5
PCT	3.2	13.1	31.9	25.9	14.5	5.9	3.3	1.2	1.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	

PERIOD: (PRIMARY) 1929-1977
(OVER-ALL) 1873-1977

JULY

TABLE 1

AREA 0033 PUNTA NEGRA
6.35 81.2W

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	ORZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMDKE HAZE	SPRAY BLWG DUST	ND SIG WEA
N	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	25.0	.0	75.0
E	.0	.0	10.9	.0	.0	.0	.0	10.9	3.3	.0	3.3	.0	.0	.0	82.0
SE	.3	1.9	2.7	.0	.0	.0	.0	4.9	1.9	.0	3.6	.0	.0	.0	86.5
S	.2	.5	.8	.0	.0	.0	.0	1.6	.5	.1	2.1	.0	3.6	.0	92.2
SW	.0	.0	2.8	.0	.0	.0	.0	2.8	.0	.6	1.2	.0	7.2	.0	88.2
W	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
NW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	6.7	.0	6.7	.0	6.7	.0	80.0
TOT PCT	.2	1.0	1.8	.0	.0	.0	.0	3.0	1.1	.1	2.7	.0	3.6	.0	89.5
TOT OBS:	1386														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	ORZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMDKE HAZE	SPRAY BLWG DUST	ND SIG WEA
00003	.3	.6	.9	.0	.0	.0	.0	1.8	.9	.0	1.8	.0	3.3	.0	92.2
06009	.3	.6	1.2	.0	.0	.0	.0	2.1	.6	.3	1.2	.0	3.2	.0	92.6
12015	.0	1.1	3.7	.0	.0	.0	.0	4.8	1.1	.0	4.3	.0	3.7	.0	86.0
18021	.3	1.6	1.6	.0	.0	.0	.0	3.5	1.6	.0	3.2	.0	4.0	.0	87.6
TOT PCT	.2	1.0	1.9	.0	.0	.0	.0	3.1	1.1	.1	2.7	.0	3.6	.0	89.5
TOT OBS:	1396														

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	48+					00	03	06	09	12	15	18	21
N	.1	.2	.*	.0	.0	.0		.3	6.6	.2	.0	.0	.5	.5	.0	.5	.6	
NE	.*	.3	.*	.0	.0	.0		.3	7.5	.0	.0	.4	.0	.5	.0	.5	.6	
E	.2	1.8	.3	.*	.0	.0		2.3	7.7	1.0	1.2	1.9	4.4	2.6	5.7	2.6	1.9	
SE	1.3	24.2	11.8	.8	.0	.0		38.1	9.7	32.6	48.3	33.7	39.3	44.9	45.3	40.3	35.0	
S	2.3	27.5	18.5	.7	.0	.0		48.9	10.0	56.6	41.9	50.2	42.4	43.6	45.3	49.4	46.7	
SW	.4	4.0	2.8	.*	.0	.0		7.2	10.2	7.3	6.4	10.1	8.7	4.8	3.8	5.3	11.4	
W	.3	.3	.3	.0	.0	.0		.8	7.2	1.0	2.3	1.4	.8	.6	.0	.3	.3	
NW	.*	.1	.0	.0	.0	.0		.1	4.4	.2	.0	.1	.0	.2	.0	.0	.0	
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	1.9							1.9	.0	1.1	.0	2.2	3.8	2.3	.0	1.2	3.2	
TOT OBS	148	1331	772	34	0	0		2285	9.6	460	43	452	182	431	53	506	158	
TOT PCT	6.5	58.2	33.8	1.5	.0	.0		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)					TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)				
	0-6	7-16	17-27	28-40	41+				00	06	12	18	21
N	.2	.2	.0	.0	.0		.3	6.6	.2	.2	.4	.5	
NE	.2	.2	.0	.0	.0		.3	7.5	.0	.3	.5	.5	
E	1.1	1.1	.1	.0	.0		2.3	7.7	1.0	2.6	2.9	2.4	
SE	10.7	24.6	2.8	.1	.0		38.1	9.7	33.9	35.3	44.9	39.0	
S	12.3	33.0	3.6	.*	.0		48.9	10.0	55.3	47.9	43.8	48.7	
SW	1.9	4.5	.8	.*	.0		7.2	10.2	7.2	9.7	4.7	6.7	
W	.5	.2	.1	.0	.0		.8	7.2	1.1	1.2	.5	.3	
NW	.1	.0	.0	.0	.0		.1	4.4	.1	.1	.2	.1	
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	
CALM	1.9						1.9	.0	1.0	2.7	2.1	1.7	
TOT OBS	660	1454	168	3	0	2285	9.6		303	634	484	664	
TOT PCT	28.9	62.6	7.4	.1	.0	100.0			100.0	100.0	100.0	100.0	

PERIOD: (PRIMARY) 1929-1977
(OVER-ALL) 1873-1977

JULY

AREA 0033 PUNTA NEGRA
6.35 81.2W

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	WIND SPEED (KNOTS)						MEAN	PCT FREQ	TOTAL OBS
		1-3	4-10	11-21	22-33	34-47	48+			
0000Z	1.0	4.0	53.1	40.4	1.6	.0	.0	10.3	100.0	503
0600Z	2.7	5.2	60.4	30.0	1.7	.0	.0	9.3	100.0	634
1200Z	2.1	5.0	57.4	34.3	1.2	.0	.0	9.5	100.0	484
1800Z	1.7	4.2	60.7	32.1	1.4	.0	.0	9.5	100.0	664
TOT	43	105	1331	772	34	0	0	9.6		2285
PCT	1.9	4.6	58.2	33.8	1.5	.0	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & ObsCD	TOTAL OBS	MEAN CLOUD COVER
N	.0	.1	.0	.0		4.0
NE	.0	.0	.1	.0		7.0
E	.0	.2	.4	.9		7.1
SE	3.7	1.6	6.3	24.9		6.8
S	10.3	4.7	9.7	30.0		5.9
SW	1.5	.8	1.1	1.8		4.8
W	.0	.0	.1	.1		7.0
NW	.0	.0	.0	.0		.0
VAR	.0	.0	.0	.0		.0
CALM	.4	.0	.1	1.0		5.7
TOT OBS	148	69	167	546	930	6.2
TOT PCT	15.9	7.4	18.0	58.7	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8)
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

000	150	300	600	1000	2000	3500	5000	6500	8000+	NH <5/8	TOTAL
149	299	599	999	1999	3499	4999	6499	7999		ANY HGT	OBS
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	
.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	
.1	.0	.0	.5	.3	.1	.1	.1	.0	.0	.5	
.1	.5	1.8	7.5	12.0	4.8	1.6	.5	.1	.3	7.2	
.2	.2	.8	8.9	17.0	5.8	2.2	.3	.3	1.0	18.3	
.1	.0	.0	1.1	.6	.3	.1	.0	.0	.1	2.8	
.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
.0	.0	.3	.4	.2	.1	.0	.0	.0	.0	.4	
.5	.6	2.7	17.1	28.2	10.3	3.7	.8	.4	1.3	27.4	930
.5	.6	2.9	18.4	30.3	11.1	4.0	.9	.4	1.4	29.5	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE
OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)							
	>10	>5	>2	>1	>1/2	>1/4	>50YD	>0
>6500	1.4	1.8	1.8	1.8	1.8	1.8	1.8	1.8
>4000	2.0	2.7	2.7	2.7	2.7	2.7	2.7	2.7
>3500	5.5	6.6	6.6	6.6	6.6	6.6	6.6	6.6
>2000	14.7	17.4	17.8	17.9	17.9	17.9	17.9	17.9
>1000	36.0	46.7	47.9	48.0	48.0	48.0	48.2	48.2
>600	47.9	64.2	66.0	66.1	66.3	66.3	66.6	66.6
>300	48.8	66.7	68.9	69.0	69.2	69.2	69.5	69.5
>150	49.1	67.2	69.6	69.7	69.9	69.9	70.1	70.1
>0	49.1	67.5	70.1	70.2	70.4	70.4	70.6	70.6
TOTAL	458	630	654	655	657	657	659	659

TOTAL NUMBER OF OBS: 933

PCT FREQ NH <5/8: 29.4

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	OBSCD	TOTAL OBS
9.7	4.8	5.6	4.4	3.7	3.0	6.6	9.5	52.3	.2	1017

PERIOD: (PRIMARY) 1929-1977
(OVER-ALL) 1879-1977

JULY

AREA 0033 PUNTA NEGRA
6.35 81.2W

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	
	NO PCP	.0	.0	.0	.1	.1	.0	.0	.0	.0	.0	.2	
	TOT %	.0	.0	.0	.1	.2	.0	.0	.0	.0	.0	.3	
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.1	.1	.0	.0	.0	.0	.0	.3	
	TOT %	.0	.0	.0	.1	.1	.0	.0	.0	.0	.0	.3	
1<2	PCP	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.1	
	NO PCP	.0	.0	.0	.1	.1	.1	.0	.0	.0	.0	.3	
	TOT %	.0	.0	.0	.2	.1	.1	.0	.0	.0	.0	.4	
2<5	PCP	.0	.0	.1	.3	.2	.1	.0	.0	.0	.0	.7	
	NO PCP	.0	.0	.1	1.4	1.5	.0	.0	.0	.0	.1	3.2	
	TOT %	.0	.0	.2	1.7	1.7	.1	.0	.0	.0	.1	3.8	
5<10	PCP	.0	.0	.1	1.0	.5	.1	.0	.0	.0	.0	1.7	
	NO PCP	.2	.2	.2	12.0	13.4	1.9	.2	.0	.0	.4	28.5	
	TOT %	.2	.2	.3	12.9	13.9	2.0	.2	.0	.0	.4	30.2	
10+	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.4	
	NO PCP	.0	.1	1.2	21.4	37.3	3.6	.1	.0	.0	.6	64.7	
	TOT %	.0	.1	1.2	22.2	37.3	3.6	.1	.0	.0	.6	65.1	
TOT OBS													1382
TOT PCT		.2	.3	1.7	37.2	53.4	5.8	.3	.0	.0	1.1	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.1	.1	.0	.0	.0	.0	.0	.2	
	11-21	.0	.0	.0	.1	.1	.0	.0	.0	.0	.0	.1	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.2	.2	.0	.0	.0	.0	.0	.4	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.1	.1	.0	.0	.0	.0	.0	.2	
	11-21	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.1	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.1	.1	.0	.0	.0	.0	.0	.2	
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.2	.2	.1	.0	.0	.0	.0	.5	
	11-21	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.2	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.2	.3	.1	.0	.0	.0	.0	.7	
2<5	0-3	.0	.0	.0	.1	.1	.0	.0	.0	.0	.1	.2	
	4-10	.0	.0	.2	1.1	1.0	.1	.0	.0	.0	.0	2.3	
	11-21	.0	.0	.0	.5	.5	.1	.0	.0	.0	.0	1.1	
	22+	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1	
	TOT %	.0	.0	.2	1.7	1.6	.1	.0	.0	.0	.1	3.7	
5<10	0-3	.0	.0	.0	.4	.5	.0	.0	.0	.0	.4	1.2	
	4-10	.2	.2	.2	7.0	8.4	1.0	.1	.0	.0	.0	15.0	
	11-21	.0	.0	.1	3.4	5.0	1.0	.1	.0	.0	.0	9.5	
	22+	.0	.0	.0	.4	.2	.0	.0	.0	.0	.0	.5	
	TOT %	.2	.2	.3	11.1	12.1	1.9	.2	.0	.0	.4	26.3	
10+	0-3	.0	.0	.2	.5	1.6	.1	.0	.0	.0	1.4	4.0	
	4-10	.0	.1	1.1	14.1	20.6	2.9	.1	.0	.0	.0	38.9	
	11-21	.0	.0	.2	8.5	14.7	1.7	.1	.0	.0	.0	25.2	
	22+	.0	.0	.0	.4	.2	.0	.0	.0	.0	.0	.6	
	TOT %	.0	.1	1.5	23.6	37.1	4.8	.1	.0	.0	1.4	68.7	
TOT OBS													1709
TOT PCT		.2	.3	2.0	36.9	51.4	7.0	.3	.0	.0	1.9	100.0	

PERIOD: (PRIMARY) 1929-1977
(OVER-ALL) 1873-1977

JULY

AREA 0033 PUNTA NEGRA
6.35 81.2W

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NM >4/8) AND
OCCURRENCE OF NM <5/8 BY HOUR

HOURL (GMT)	0/0 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL 67.2	NM <5/8 ANY HGT 32.8	TOTAL OBS 241
00003	.4	.8	1.7	18.7	29.9	10.4	3.7	.4	.0	1.2	67.2	32.8	241
06009	1.0	.5	2.9	10.5	27.8	9.1	1.4	.5	1.0	2.4	56.9	43.1	209
12015	.8	.8	4.0	22.7	32.8	10.9	6.9	1.6	.8	1.2	82.6	17.4	247
18021	.0	.4	2.8	19.2	28.8	13.2	3.6	.8	.0	.8	69.6	30.4	250
TOT	5	6	27	171	283	104	38	8	4	13	659	288	947
PCT	.5	.6	2.9	18.1	29.9	11.0	4.0	.8	.4	1.4	69.6	30.4	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOURL (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.3	.0	1.0	3.3	26.4	68.3	398
06009	.4	.2	.6	3.9	23.3	71.5	467
12015	.3	.5	.5	5.0	30.7	63.0	397
18021	.4	.2	.7	3.5	25.6	69.6	457
TOT	6	4	12	68	455	1174	1719
PCT	.3	.2	.7	4.0	26.5	68.3	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR
CEILING HGT (FEET, NM >4/8) BY HOUR

HOURL (GMT)	<150 <500D	<600 <1	<1000 <5	1000+ AND 5+	NM <5/8 AND 5+	TOTAL OBS
00003	.4	3.4	23.3	45.3	31.4	236
06009	1.0	4.9	16.5	42.2	41.3	206
12015	.8	6.2	31.3	53.1	15.6	243
18021	.0	3.6	25.0	45.6	29.4	248
TOT	5	42	227	436	270	933
PCT	.5	4.5	24.3	46.7	28.9	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
80/84	.0	.0	.0	.2	.1	.2	.1	.0	7	.5
75/79	.0	.0	.1	.3	.3	1.1	.7	.2	34	2.6
70/74	.0	.0	.0	.2	1.5	4.2	8.4	3.5	194	14.7
65/69	.0	.0	.0	.1	.3	6.2	22.4	15.2	585	44.2
60/64	.0	.0	.0	.0	.1	1.9	17.5	18.2	496	37.6
55/59	.0	.0	.0	.0	.0	.0	.1	.3	5	.4
TOTAL	0	0	1	9	30	179	610	494	1323	100.0
PCT	.0	.0	.1	.7	2.3	13.5	46.1	37.3		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.0	.0	.0	.2	.3	.0	.1	.0	.0	.0
.1	.1	.0	1.3	.8	.3	.0	.0	.0	.0
.1	.0	.4	5.0	8.0	1.2	.1	.0	.0	.0
.1	.2	.6	16.3	22.9	3.5	.1	.0	.0	.5
.1	.2	.4	14.8	19.9	1.8	.1	.0	.0	.5
.0	.0	.0	.2	.1	.0	.0	.0	.0	.0
.3	.4	1.4	37.8	52.1	6.7	.3	.0	.0	1.1

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOURL (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	84	78	72	65	61	60	59	65.9	509
06009	78	73	70	64	61	60	59	64.7	635
12015	82	75	72	65	61	59	59	65.4	489
18021	82	80	75	68	63	61	59	68.2	653
TOT	84	77	73	65	61	60	59	66.1	2286

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOURL (GMT)	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	.0	1.5	14.5	45.5	38.5	86	325		
06009	.0	.3	1.2	7.3	41.6	49.5	88	329		
12015	.0	.9	.9	9.7	45.8	42.7	87	321		
18021	.0	1.7	5.0	21.4	50.8	21.1	83	360		
TOT	0	10	30	179	615	501	86	1335		

JULY

PERIOD: (PRIMARY) 1929-1977
(OVER-ALL) 1873-1977

TABLE 17

AREA 0033 PUNTA NEGRA
0.35 01.2WPCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FDG (WITHOUT PRECIPITATION)
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	57 60	61 64	65 68	69 72	73 76	77 80	81 84	TOT	W FDG	WD FDG
14/16	.0	.0	.2	.0	.1	.1	.0	4	.0	.3
11/13	.0	.2	.2	.1	.2	.2	.1	12	.0	1.0
9/10	.0	.4	.2	.3	.2	.2	.0	16	.1	1.2
7/8	.0	.2	.2	.6	.4	.2	.0	21	.1	1.6
6	.1	.1	.3	.5	.1	.0	.0	13	.1	1.0
5	.0	.2	1.0	.9	.4	.0	.0	32	.0	2.5
4	.0	.2	3.1	1.4	.2	.0	.0	62	.0	4.9
3	.0	1.7	3.2	.9	.3	.1	.1	79	.0	6.3
2	.2	4.8	4.0	2.1	.5	.1	.0	146	.5	11.1
1	.4	6.0	5.8	1.7	.5	.0	.0	181	.6	13.7
0	.6	9.9	6.0	2.0	.6	.1	.0	250	.5	19.3
-1	.4	4.2	4.6	1.8	.6	.1	.0	147	.5	11.2
-2	.6	3.9	2.7	1.3	.3	.1	.0	112	.3	8.6
-3	.2	2.4	2.8	1.1	.6	.0	.0	88	.1	6.9
-4	.1	1.4	.7	.2	.3	.0	.0	34	.0	2.7
-5	.2	1.3	.6	.2	.1	.0	.0	29	.0	2.3
-6	.1	.3	.6	.1	.0	.0	.0	14	.0	1.1
-7/-8	.0	.6	.3	.1	.1	.1	.0	14	.0	1.1
-9/-10	.0	.1	.0	.1	.0	.0	.0	2	.0	.2
-11/-13	.1	.2	.1	.0	.0	.0	.0	5	.1	.3
-14/-16	.1	.1	.0	.0	.0	.0	.0	2	.0	.2
TOTAL	36	483	468	192	67	15	2	1263	35	1226
PCT	2.9	38.2	37.1	15.2	5.3	1.2	.2	100.0	2.8	97.2

PERIOD: (OVER-ALL) 1963-1977

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	N							PCT	NE							PCT
	1-3	4-10	11-21	22-33	34-47	48+			1-3	4-10	11-21	22-33	34-47	48+		
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.2	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.2	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0

HGT	E							PCT	SE							PCT
	1-3	4-10	11-21	22-33	34-47	48+			1-3	4-10	11-21	22-33	34-47	48+		
<1	.0	.2	.0	.0	.0	.0	.2	.0	.0	1.1	.0	.0	.0	.0	.0	1.2
1-2	.0	.3	.1	.0	.0	.0	.5	.0	.2	10.0	4.7	.0	.0	.0	.0	14.9
3-4	.0	.1	.1	.0	.0	.0	.3	.0	.0	7.8	6.4	.0	.0	.0	.0	14.0
5-6	.0	.1	.3	.0	.0	.0	.4	.0	.0	1.1	3.0	.4	.0	.0	.0	4.5
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	1.2	.0	.0	.0	.0	1.5
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.2
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.8	.5	.0	.0	.0	1.3	.0	.2	20.1	15.5	.4	.0	.0	.0	36.3

PERIOD: (OVER-ALL) 1963-1977

JULY

AREA 0033 PUNTA NEGRA
6.35 81.2W

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.7	1.4	.0	.0	.0	.0	2.1	.0	.0	.0	.0	.0	.0	.0
1-2	.5	1.1	5.4	.0	.0	.0	20.1	.2	1.2	1.1	.0	.0	.0	1.5
3-4	.0	8.8	12.7	.0	.0	.0	21.0	.0	1.5	1.3	.0	.0	.0	2.8
5-6	.2	2.4	5.8	.5	.0	.0	8.9	.0	.0	.5	.0	.0	.0	.5
7	.0	.3	1.9	.0	.0	.0	2.2	.0	.0	.2	.0	.0	.0	.2
8-9	.0	.0	.0	.0	.0	.0	.9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.4	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.4	27.1	26.4	.5	.0	.0	55.5	.2	2.7	2.1	*	.0	.0	5.1

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.2	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.0	.2	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	98.5

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	2.2	2.7	.0	.0	.0	.0	4.9	
1-2	.9	25.8	10.4	.0	.0	.0	37.2	
3-4	.0	18.1	20.0	.0	.0	.0	38.1	
5-6	.2	3.7	9.5	.9	.0	.0	14.3	
7	.0	.5	3.5	.0	.0	.0	4.0	
8-9	.0	.0	1.1	.0	.0	.0	1.1	
10-11	.0	.0	.0	.0	.0	.0	.4	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	3.2	50.9	44.9	.9	.0	.0	100.0	546

PERIOD: (OVER-ALL) 1950-1977

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT	
<6	1.9	12.1	17.0	10.0	2.8	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	367	3
6-7	.1	.2	7.4	11.9	6.7	1.4	.7	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	240	5
8-9	.1	.2	2.3	3.5	2.9	.2	.6	.6	.2	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	106	6
10-11	.0	.0	.7	1.1	1.3	1.3	.7	.5	.1	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	49	8
12-13	.0	.0	.8	.7	.1	.0	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	17	5
>13	.0	.0	.0	.4	.1	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	8	7
INDET	1.0	1.9	1.1	.8	.5	.5	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	49	3
TOTAL	2.6	12.1	24.5	29.6	12.0	4.6	2.3	1.0	.4	.2	.0	1	.0	.0	.0	.0	.0	.0	.0	.0	834	3
PCT	3.1	14.5	29.4	28.3	14.4	5.5	2.8	1.2	.5	.2	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	100.0	

PERIOD: (PRIMARY) 1929-1977
(OVER-ALL) 1872-1977

AUGUST

AREA 0033 PUNTA NEGRA
6.35 81.5W

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FDG WD PCPN	FDG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST BLWG SNOW	NO SIG WEA
N	.0	.0	.0	.0	.0	.0	.0	.0	21.1	.0	.0	.0	10.5	.0	68.4
NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
E	.0	.0	.0	.0	.0	.0	.0	.0	5.1	.0	.0	.0	.0	.0	94.9
SE	.0	.6	2.7	.0	.0	.0	.0	3.4	2.3	.0	2.8	.0	1.9	.1	89.6
S	.1	.2	2.6	.0	.0	.0	.0	2.9	1.2	.0	1.7	.3	3.4	.1	90.3
SW	.2	.0	1.9	.0	.0	.0	.0	2.1	.0	.0	1.6	.0	.2	.0	96.0
W	.0	.0	9.3	.0	.0	.0	.0	9.3	.0	.0	.0	.0	.0	.0	90.7
NW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	3.7	.0	.0	.0	.0	3.7	.0	.0	7.4	.0	.0	.0	88.9
TOT PCT	.1	.3	2.6	.0	.0	.0	.0	3.0	1.6	.0	2.1	.2	2.5	.1	90.5
TOT OBS:	1231														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA								
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG SNOW	DUST	NO SIG WEA
0000	.0		.9	.0	.0	.0	.0	.9	.6	.0	.6	.0	1.5	.3		96.0
0600	.0	.7	1.7	.0	.0	.0	.0	2.3	1.7	.0	.7	.3	2.6	.0		92.4
1200	.3	.0	5.5	.0	.0	.0	.0	5.8	2.9	.0	5.2	.0	3.2	.0		82.9
1800	.0	.6	2.2	.0	.0	.0	.0	2.8	1.6	.0	1.9	.3	2.5	.0		90.9
TOT PCT	.1	.3	2.5	.0	.0	.0	.0	2.9	1.7	.0	2.1	.2	2.5	.1		90.6
TOT OBS:	1260															

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							48+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)						
	0-3	4-10	11-21	22-33	34-47	00	03					06	09	12	15	18	21	
N	.3	.1	*	.0	.0	.0		.5	4.3	.2	.0	.5	.7	.7	.0	.4	1.8	
NE	.1	.1	*	*	.0	.0		.3	9.4	.4	.0	.1	.7	.5	.0	.0	.5	
E	.2	.9	.3	*	.0	.0		1.3	8.3	.8	.0	.6	1.8	2.1	.0	2.1	.5	
SE	1.4	19.1	11.6	.6	*	.0		32.8	10.2	24.5	40.0	27.1	34.0	42.7	52.1	37.5	23.6	
S	2.3	31.1	17.4	.5	*	.0		51.4	9.8	59.6	35.0	55.0	43.4	43.9	27.9	51.7	51.8	
SW	2.6	4.6	3.1	.3	.0	.0		10.6	8.7	13.3	25.0	12.9	12.2	5.8	17.9	6.0	20.0	
W	.1	.3	.2	.0	.0	.0		.6	8.4	.3	.0	.7	.7	.9	2.1	.6	.0	
NW	.1	.2	*	.0	.0	.0		.3	6.8	.3	.0	.2	.7	.6	.0	.2	.0	
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	2.1							2.1	.0	.7	.0	2.9	5.7	2.7	.0	1.6	1.8	
TOT OBS	188	1151	667	31	2	0		2039	9.6	456	25	414	141	408	35	451	109	
TOT PCT	9.2	56.4	32.7	1.5	.1	.0			100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)					TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)				
	0-6	7-16	17-27	28-40	41+				00	03	09	15	18
N	.4	.1	.0	.0	.0		.5	4.3	.2	.5	.7	.7	.7
NE	.1	.1	*	.0	.0		.3	9.4	.4	.3	.5	.5	.1
E	.5	.8	*	.0	.0		1.3	8.3	.8	.9	2.0	1.7	
SE	7.7	22.5	2.5	.2	.0		32.8	10.2	25.3	28.9	43.5	34.8	
S	14.0	33.0	4.4	*	.0		51.4	9.8	58.3	52.0	42.6	51.7	
SW	4.3	5.0	1.2	*	.0		10.6	8.7	13.9	12.7	6.8	8.8	
W	.3	.2	.1	.0	.0		.6	8.4	.3	.7	1.0	.4	
NW	.2	.2	.0	.0	.0		.3	6.8	.3	.4	.6	.2	
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	
CALM	2.1						2.1	.0	.6	3.6	2.5	1.6	
TOT OBS	604	1260	169	6	0		2039	9.6	481	553	443	560	
TOT PCT	29.6	61.8	8.3	.3	.0			100.0	100.0	100.0	100.0	100.0	

PERIOD: (PRIMARY) 1929-1977
(OVER-ALL) 1872-1977

AUGUST

AREA 0093 PUNTA NEGRA
6.35 81.5W

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)				48+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47					
0000Z	.6	4.0	54.1	38.9	2.3	.2	.0	.0	10.4	100.0	481
0600Z	3.6	9.0	55.3	30.6	1.3	.2	.0	.0	9.1	100.0	555
1200Z	2.5	8.4	56.0	32.5	.7	.0	.0	.0	9.3	100.0	443
1800Z	1.6	7.0	60.0	29.6	1.8	.0	.0	.0	9.5	100.0	560
TOT	43	145	1151	687	31	2	.0	.0	9.6		2039
PCT	2.1	7.1	56.4	32.7	1.5	.1	.0	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	.0	.0	.0	.5		8.0
NE	.0	.1	.0	.0		3.0
E	.0	.1	.1	1.2		7.0
SE	2.4	1.5	6.2	24.3		7.0
S	8.4	3.5	9.7	32.5		6.3
SW	2.4	.9	.9	2.3		4.3
W	.3	.1	.3	.1		3.7
NW	.0	.0	.2	.2		7.4
VAR	.0	.0	.0	.0		.0
CALM	.0	.0	.9	.9		7.3
TOT OBS	126	58	170	576	930	6.4
TOT PCT	13.5	6.2	18.3	61.9	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8)
AND OCCURRENCE OF NH <5/3 BY WIND DIRECTION

	000	150	300	600	1000	2000	3500	5000	6500	8000+	NH <5/8	TOTAL
	149	299	599	999	1999	3499	4999	6499	7999		ANY HGT	OBS
N	.0	.0	.0	.0	.3	.0	.0	.0	.0	.0	.0	.2
NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1
E	.0	.0	.1	.8	.2	.1	.1	.0	.0	.0	.0	.1
SE	.1	.6	1.0	8.7	13.7	3.3	1.1	.1	.1	.0	.0	9.2
S	.0	.5	2.1	11.0	16.3	6.1	1.2	.6	.2	.1	.1	13.7
SW	.0	.0	.0	.3	1.3	.4	.2	.0	.0	.0	.0	3.7
W	.0	.0	.0	.2	.0	.1	.0	.0	.0	.0	.0	.4
NW	.0	.0	.0	.0	.2	.0	.0	.1	.0	.0	.0	.1
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.2	.6	.3	.2	.2	.0	.0	.1	.0	.0
TOT OBS	1	11	32	205	301	100	29	7	3	3	238	930
TOT PCT	.1	1.2	3.4	22.0	32.4	10.8	3.1	.8	.3	.3	25.6	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE
OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	OR			OR			OR			OR		
	>10	>5	>2	>1	>1/2	>1/4	>5QVD	>0		>10	>5	>2
OR >6500	.3	.6	.6	.6	.6	.6	.6	.6		.6	.6	.6
OR >5000	.6	1.2	1.5	1.5	1.5	1.5	1.5	1.5		1.5	1.5	1.5
OR >3500	3.5	4.3	4.7	4.7	4.7	4.7	4.7	4.7		4.7	4.7	4.7
OR >2000	12.3	15.1	15.5	15.6	15.6	15.6	15.6	15.6		15.6	15.6	15.6
OR >1000	36.7	47.4	48.0	48.1	48.1	48.1	48.1	48.1		48.1	48.1	48.1
OR >600	50.4	68.6	69.9	70.0	70.0	70.0	70.0	70.0		70.0	70.0	70.0
OR >300	52.0	71.7	73.3	73.4	73.4	73.4	73.4	73.4		73.4	73.4	73.4
OR >150	52.4	72.5	74.2	74.4	74.4	74.4	74.4	74.4		74.4	74.4	74.4
OR >0	52.4	72.5	74.3	74.5	74.5	74.5	74.5	74.5		74.5	74.5	74.5
TOTAL	496	686	703	705	705	706	706	706		706	706	706

TOTAL NUMBER OF OBS 946

PCT FREQ NH <5/8 25.4

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

	0	1	2	3	4	5	6	7	8 OBSCD	TOTAL OBS
	9.1	4.5	3.3	3.6	2.9	3.0	7.8	8.8	55.1	1014

PERIOD: (PRIMARY) 1929-1977
(OVER-ALL) 1872-1977

AUGUST

AREA 0033 PUNTA NEGRA
6.3S 81.5W

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1	.1
	TOT %	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1	.1
1/2<1	PCP	.0	.0	.0	*	.1	.0	.0	.0	.0	.0	.2	.2
	NO PCP	.0	.0	.0	.0	*	*	.0	.0	.0	.0	.1	.1
	TOT %	.0	.0	.0	*	.2	*	.0	.0	.0	.0	.3	.3
1<2	PCP	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.1	.1
	NO PCP	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1	.1
	TOT %	.0	.0	.0	.0	.1	.0	.1	.0	.0	.0	.2	.2
2<5	PCP	.0	.0	.0	.3	.3	.0	.0	.0	.0	.0	.6	.6
	NO PCP	.0	.0	.0	.7	.6	.1	.0	.0	.0	.2	1.6	1.6
	TOT %	.0	.0	.0	1.0	1.1	.1	.0	.0	.0	.2	2.3	2.3
5<10	PCP	.0	.0	.0	.4	.8	.2	.0	.0	.0	.1	1.5	1.5
	NO PCP	.6	.2	.3	8.6	12.6	1.2	.4	*	.0	.9	24.9	24.9
	TOT %	.6	.2	.3	9.1	13.4	1.4	.4	*	.0	1.0	26.4	26.4
10+	PCP	.0	.0	.0	.3	.4	.0	.0	.0	.0	.0	.7	.7
	NO PCP	.2	.1	1.0	22.1	40.0	5.0	.5	.3	.0	1.1	70.1	70.1
	TOT %	.2	.1	1.0	22.4	40.4	5.0	.5	.3	.0	1.1	70.8	70.8
TOT OBS													1199
TOT PCT		.4	.3	1.2	32.5	55.2	6.6	.9	.3	.0	2.3	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	11-21	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1	.1
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1	.1
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	*	*	.0	.0	.0	.0	.1	.1
	11-21	.0	.0	.0	*	.1	.0	.0	.0	.0	.0	.1	.1
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	*	.1	*	.0	.0	.0	.0	.2	.2
1<2	0-3	.0	.0	.0	.1	.1	.0	.0	.0	.0	.1	.2	.2
	4-10	.0	.0	.0	.0	.1	.0	.1	.0	.0	.0	.1	.1
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.1	.1	.0	.1	.0	.0	.1	.4	.4
2<5	0-3	.0	.0	.0	.1	.1	.0	.0	.0	.0	.1	.4	.4
	4-10	.0	.0	.0	.6	.6	*	.0	.0	.0	.0	1.1	1.1
	11-21	.0	.0	.0	.3	.4	.1	.0	.0	.0	.0	.9	.9
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	1.0	1.1	.2	.0	.0	.0	.1	2.3	2.3
5<10	0-3	.5	.0	.0	.8	.6	.2	.2	*	.0	.9	3.2	3.2
	4-10	.1	.1	.3	3.9	6.2	.5	.1	*	.0	.0	11.1	11.1
	11-21	.0	.1	.0	3.3	5.2	.6	.1	.0	.0	.0	9.3	9.3
	22+	.0	.0	.0	.2	.2	.0	.0	.0	.0	.0	.4	.4
	TOT %	.5	.1	.3	8.3	12.2	1.4	.3	*	.0	.9	24.0	24.0
10+	0-3	.0	.0	.1	.5	1.8	.1	.0	.0	.0	1.4	3.9	3.9
	4-10	.1	*	.5	11.9	24.0	3.4	.3	.2	.0	.0	40.4	40.4
	11-21	.1	.0	.3	9.5	15.2	2.1	.2	.0	.0	.0	27.4	27.4
	22+	.0	.1	.0	.4	.5	.4	.0	.0	.0	.0	1.3	1.3
	TOT %	.1	.1	.9	22.2	41.4	6.1	.4	.2	.0	1.4	73.0	73.0
TOT OBS													1407
TOT PCT		.7	.2	1.2	31.6	55.1	7.7	.8	.3	.0	2.5	100.0	

PERIOD: (PRIMARY) 1929-1977
(OVER-ALL) 1872-1977

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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET/NM >4/8) AND
OCCURRENCE OF NM <3/8 BY HOUR

HOURL (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NM <3/8 ANY MGT	TOTAL OBS
00003	.0	.4	3.1	17.6	30.9	9.9	.8	1.5	.4	.0	64.5	35.5	262
06009	.5	1.4	1.8	19.4	30.9	11.1	3.7	.0	.0	.9	69.6	30.4	217
12015	.0	1.2	5.7	25.6	36.2	9.3	4.1	1.2	.4	.4	84.1	15.9	246
18021	.0	1.7	2.5	23.5	29.4	13.0	4.2	.4	.4	.0	75.2	24.8	238
TOT	1	11	32	207	307	104	30	8	3	3	706	257	963
PCT	.1	1.1	3.3	21.5	31.9	10.8	3.1	.8	.3	.3	73.3	26.7	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOURL (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.0	.0	.0	.5	21.6	77.8	365
06009	.0	.3	.8	1.1	23.7	74.2	372
12015	.0	.0	.6	6.6	29.3	63.4	331
18021	.3	.0	.0	1.7	23.8	73.8	362
TOT	1	3	5	34	350	1037	1430
PCT	.1	.2	.3	2.4	24.5	72.5	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR
CEILING HGT (FEET/NM >4/8) BY HOUR

HOURL (GMT)	<150 <500	<600 <1	<1000 <5	1000+ AND 5+	NM <3/8 AND 5+	TOTAL OBS
00003	.0	3.5	21.9	44.1	34.0	256
06009	.5	3.8	24.4	47.4	28.2	213
12015	.0	7.0	35.5	50.0	14.5	242
18021	.0	4.3	28.1	48.1	23.8	235
TOT	1	44	260	448	238	946
PCT	.1	4.7	27.5	47.4	25.2	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
85/89	.0	.0	.0	.1	.0	.0	.0	.0	1	.1
80/84	.0	.0	.0	.0	.1	.0	.1	.0	2	.2
75/79	.0	.0	.1	.1	.3	.2	.2	.1	10	.9
70/74	.0	.0	.0	.1	.5	3.3	3.7	1.3	94	8.9
65/69	.0	.0	.0	.0	.3	5.1	19.4	8.8	354	33.6
60/64	.0	.0	.0	.0	.0	3.2	27.1	24.2	575	54.6
55/59	.0	.0	.0	.0	.0	.0	.4	1.3	18	1.7
TOTAL	0	0	1	3	12	125	536	377	1054	100.0
PCT	.0	.0	.1	.3	1.1	11.9	50.9	35.8		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.0	.0	.0	.0	.1	.0	.0	.0	.0	.0
.0	.0	.0	.1	.0	.1	.0	.0	.0	.0
.0	.0	.0	.3	.5	.0	.0	.2	.0	.0
.1	.0	.4	2.8	4.9	.4	.1	.1	.0	.3
.1	.0	.5	13.0	17.0	2.4	.4	.0	.0	.2
.6	.1	.5	17.5	29.4	4.3	.4	.0	.0	1.8
.0	.0	.0	.9	.8	.1	.0	.0	.0	.0
.8	.1	1.3	34.5	52.6	7.3	.8	.3	.0	2.3

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOURL (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	81	74	71	64	61	59	58	64.9	503
06009	84	73	70	63	60	58	55	63.7	386
12015	81	75	70	63	60	59	58	64.0	468
18021	87	79	74	67	62	61	59	67.4	568
TOT	87	76	72	64	60	59	55	65.0	2123

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	.0	.3	11.6	55.1	32.9	86	292
06009	.0	.0	.4	6.8	50.7	42.1	88	278
12015	.0	.3	.0	8.3	46.9	44.6	88	303
18021	.0	1.5	4.1	22.9	49.1	22.5	83	271
TOT	0	5	13	140	577	409	86	1144

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TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	57 60	61 64	65 68	69 72	73 76	77 80	81 84	TOT	W FOG	NO FOG
14/16	.0	.0	.0	.0	.0	.1	.0	1	.0	.1
11/13	.0	.2	.2	.0	.2	.1	.1	8	.1	.6
9/10	.0	.2	.2	.9	.4	.0	.0	20	.0	1.7
7/8	.0	.3	.7	.9	.7	.1	.0	30	.0	2.6
6	.0	.1	1.0	.2	.0	.1	.0	16	.1	1.3
5	.0	.4	1.8	.6	.2	.0	.1	36	.0	3.1
4	.0	1.2	2.0	1.0	.2	.1	.1	53	.3	4.3
3	.1	1.9	2.6	1.0	.3	.0	.0	68	.1	5.8
2	.3	3.9	3.1	1.4	.1	.0	.0	125	.4	10.3
1	1.4	8.7	4.8	1.0	.2	.1	.0	188	.3	15.9
0	1.3	9.2	4.6	1.0	.0	.0	.0	188	.3	15.8
-1	1.0	7.4	3.7	.6	.0	.0	.0	148	.1	12.7
-2	.6	5.2	2.7	.7	.1	.1	.0	108	.2	9.1
-3	.7	2.8	1.9	.3	.3	.0	.0	71	.1	6.0
-4	.3	2.1	1.3	.3	.1	.0	.0	48	.1	4.0
-5	.0	.8	.9	.2	.0	.1	.0	23	.0	2.0
-6	.1	.4	.0	.3	.0	.0	.0	10	.0	.9
-7/-8	.1	.3	.3	.3	.0	.0	.0	12	.0	1.0
-9/-10	.0	.3	.3	.0	.0	.0	.0	7	.0	.6
-11/-13	.0	.1	.1	.0	.0	.0	.0	2	.0	.2
TOTAL	68	552	373	127	31	8	3	1162	2.0	98.0
PCT	5.9	47.5	32.1	10.9	2.7	.7	.3	100.0	2.0	98.0

PERIOD: (OVER-ALL) 1963-1977

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	27-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
41	.2	.2	.0	.0	.0	.0	.4	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.2	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.2	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.2	.4	.7	.0	.0	.0	.8	.0	.0	.0	.0	.0	.0	.0

HGT	1-3	4-10	11-21	27-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
41	.0	.2	.0	.0	.0	.0	.2	.2	2.8	.3	.0	.0	.0	3.3
1-2	.0	.4	.2	.0	.0	.0	.6	.3	11.1	6.1	.0	.0	.0	17.5
3-4	.0	.6	.3	.0	.0	.0	.9	.0	3.0	7.3	.0	.0	.0	10.3
5-6	.0	.0	.0	.0	.0	.0	.0	.0	2	3.4	.2	.0	.0	3.9
7	.0	.0	.2	.0	.0	.0	.2	.0	.0	1.3	.0	.0	.0	1.5
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.2	.0	.0	.3
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.1
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	1.1	.7	.0	.0	.0	1.8	.5	17.2	16.7	.4	.0	.0	36.8

PERIOD: (OVER-ALL) 1963-1977

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TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.2	2.6	.4	.0	.0	.0	2.2	.1	.3	.0	.0	.0	.0	.6
1-2	.8	15.3	4.4	.0	.0	.0	20.5	.0	1.5	.9	.0	.0	.0	2.4
3-4	.0	8.4	8.0	.0	.0	.0	16.4	.0	1.0	.7	.0	.0	.0	1.7
5-6	.0	1.0	7.3	.2	.2	.0	8.8	.0	.1	.7	.2	.0	.0	1.0
7	.0	.2	2.4	.0	.0	.0	2.6	.0	.0	.1	.0	.0	.0	.1
8-9	.0	.2	.2	.0	.0	.0	.4	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.2	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.0	27.8	22.8	.2	.2	.0	52.2	.1	3.0	2.4	.2	.0	.0	5.7

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.2	.4	.0	.0	.0	.0	.6	.0	.5	.0	.0	.0	.0	.5	
1-2	.0	.2	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	
3-4	.0	.0	.2	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.2	.6	.2	.0	.0	.0	.9	.0	.5	.0	.0	.0	.0	.5	98.7

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	2.2	7.0	.7	.0	.0	.0	9.9	
1-2	1.1	28.6	11.5	.0	.0	.0	41.2	
3-4	.2	13.0	16.5	.0	.0	.0	29.7	
5-6	.0	1.3	11.7	.7	.2	.0	13.9	
7	.0	.2	4.2	.0	.0	.0	4.4	
8-9	.0	.2	.2	.0	.0	.0	.7	
10-11	.0	.0	.2	.0	.0	.0	.2	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	3.5	50.4	44.9	.9	.2	.0	100.0	454

PERIOD: (OVER-ALL) 1949-1977

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT	
<6	1.1	9.9	17.3	6.9	1.4	.8	.6	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	304	3
6-7	.0	1.6	7.1	11.6	6.6	1.5	.5	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	234	5
8-9	.0	.5	2.5	5.8	3.1	1.5	.5	.0	.1	.0	.3	.1	.0	.0	.0	.0	.0	.0	.0	.0	115	6
10-11	.0	.4	1.5	1.3	2.0	1.3	1.1	.1	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	63	7
12-13	.0	.0	.6	.6	.8	.4	.1	.1	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	23	7
13-19	.0	.0	.0	.1	.1	.1	.1	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	8	9
INDET	1.3	1.6	1.4	1.4	.5	.1	.5	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	85	4
TOTAL	19	112	243	221	116	45	28	6	7	0	2	1	0	0	0	0	0	0	0	.0	800	5
PCT	2.4	14.0	30.4	27.6	14.5	5.6	3.5	.8	.9	.0	.3	.1	.0	.0	.0	.0	.0	.0	.0	.0	100.0	

PERIOD: (PRIMARY) 1928-1977
(OVER-ALL) 1869-1977

SEPTEMBER

AREA 0033 PUNTA NEGRA
6.55 80.9W

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA						
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FDG WD PCPN	FDG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST SIG WEA
N	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0 100.0
NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0 100.0
E	.0	.0	11.8	.0	.0	.0	.0	11.8	.0	.0	8.8	.0	.0	.0 79.4
SE	.1	.2	4.5	.0	.0	.0	.0	4.7	.8	.4	6.5	.3	1.9	.5 84.8
S	.4	.1	2.6	.0	.0	.0	.0	3.0	.5	.1	5.4	.1	4.6	.0 86.3
SW	1.0	.0	1.5	.0	.0	.0	.0	2.5	.5	.0	2.5	.0	2.0	1.0 91.6
W	.0	.0	15.0	.0	.0	.0	.0	15.0	.0	.0	.0	.0	.0	.0 85.0
NW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0 100.0
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0 87.5
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	12.5	.0 87.5
TOT PCT	.3	.2	3.2	.0	.0	.0	.0	3.6	.6	.2	5.4	.2	3.6	.2 86.3
TOT OBS:	1231													

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA						
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FDG WD PCPN	FDG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST SIG WEA
0603	.3	.6	2.1	.0	.0	.0	.0	3.1	.0	.3	4.9	.3	3.7	.0 87.7
0609	.0	.0	3.6	.0	.0	.0	.0	3.6	.3	.3	4.9	.0	2.6	1.0 87.4
1205	1.0	.0	5.1	.0	.0	.0	.0	5.8	1.7	.0	5.4	.3	4.1	.0 82.7
18021	.0	.0	1.9	.0	.0	.0	.0	1.9	.6	.0	6.7	.0	3.8	.0 86.9
TOT PCT	.3	.2	3.1	.0	.0	.0	.0	3.5	.6	.2	5.5	.2	3.5	.2 86.2
TOT OBS:	1242													

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							48+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)						
	0-3	4-10	11-21	22-33	34-47	00	03					06	09	12	15	18	21	
N	.1	.0	.0	.0	.0	.0	.1	2.0	.0	.0	.0	.3	.2	.0	.0	.0		
NE	.2	.2	.0	.0	.0	.0	.2	5.1	.2	.0	.0	.6	.0	.0	.2	.0		
E	.1	.8	.1	.0	.0	.0	1.0	8.3	.6	.0	.5	3.0	1.6	.0	1.1	.0		
SE	1.3	20.0	11.9	.4	.0	.0	33.6	10.0	24.8	36.2	32.7	40.0	38.5	53.8	36.1	31.0		
S	2.1	32.2	20.3	.5	.0	.0	55.1	10.1	61.0	55.9	55.7	44.2	51.1	41.3	55.7	58.7		
SW	.3	3.8	3.6	.2	.0	.0	8.0	11.3	11.6	7.9	9.1	8.3	5.5	4.8	5.6	8.5		
W	.0	.3	.2	.0	.0	.0	.5	8.4	.7	.0	.3	.0	.4	.0	.5	1.1		
NW	.0	.1	.0	.0	.0	.0	.1	7.0	.0	.0	.0	.3	.5	.0	.0	.0		
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
CALM	1.4						1.4	.0	1.1	.0	1.6	3.8	1.7	.0	.8	.7		
TOT OBS	114	1236	777	24	0	0	2151		10.0	461	38	435	160	412	26	481	138	
TOT PCT	5.3	57.5	36.1	1.1	.0	.0		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)				41+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)			
	0-6	7-16	17-27	28-40					00	06	12	18
N	.1	.0	.0	.0	.0	.1	2.0	.0	.1	.2	.0	.0
NE	.2	.0	.0	.0	.0	.2	5.1	.2	.0	.6	.0	.2
E	.2	.8	.0	.0	.0	1.0	8.3	.6	1.2	1.5	.9	.0
SE	7.7	23.5	2.3	.1	.0	33.6	10.0	25.7	34.7	39.4	35.0	.0
S	12.3	38.9	3.9	.0	.0	55.1	10.1	60.6	52.6	50.5	50.3	.0
SW	1.6	5.1	1.3	.1	.0	8.0	11.3	11.3	8.9	5.4	6.2	.0
W	.3	.2	.0	.0	.0	.5	8.4	.7	.3	.3	.6	.0
NW	.0	.1	.0	.0	.0	.1	7.0	.0	.1	.5	.0	.0
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	1.4					1.4	.0	1.0	2.2	1.6	.8	.0
TOT OBS	310	1475	161	5	0	2151		499	595	438	619	
TOT PCT	23.7	68.6	7.5	.2	.0	100.0		100.0	100.0	100.0	100.0	

SEPTEMBER

PERIOD: (PRIMARY) 1928-1977
(OVER-ALL) 1869-1977

AREA 0033 PUNTA NEGRA
6.55 80.9M

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	WIND SPEED (KNOTS)						MEAN	PCT FREQ	TOTAL OBS
		1-3	4-10	11-21	22-33	34-47	48+			
0000	1.0	2.0	51.7	43.9	1.4	.0	.0	10.9	100.0	499
0600	2.2	5.0	57.3	33.9	1.5	.0	.0	9.7	100.0	595
1200	1.6	5.7	58.4	33.3	.9	.0	.0	9.4	100.0	438
1800	.8	3.1	61.6	33.9	.6	.0	.0	9.9	100.0	619
TOT	30	84	1236	777	24	0	0	10.0		2151
PCT	1.4	3.9	57.5	36.1	1.1	.0	.0		100.0	

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	.0	.0	.1	.0		7.0
NE	.0	.0	.0	.0		.0
E	.1	.0	.4	.3		6.3
SE	1.7	1.0	4.5	21.5		7.1
S	6.5	5.4	13.0	36.6		6.5
SW	1.7	1.3	1.4	3.5		5.4
W	.0	.0	.1	.1		7.5
NW	.0	.0	.0	.0		7.0
VAR	.0	.0	.0	.0		5.6
CALM	.1	.1	.1	.3		5.6
TOT OBS	91	70	177	559	897	6.6
TOT PCT	10.1	7.8	19.7	62.5	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NM >4/8)
AND OCCURRENCE OF NM <5/8 BY WIND DIRECTION

000	150	300	600	1000	2000	3500	5000	6500	8000+	NM <5/8 ANY HGT	TOTAL OBS
149	299	599	999	1999	3999	4999	6499	7999			
.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
.0	.1	.0	.0	.1	.1	.0	.0	.0	.0	.5	
.1	.1	2.6	7.1	10.0	3.9	.1	.1	.1	.2	4.3	
.6	.1	2.1	12.1	18.6	7.5	2.2	.2	.2	.8	17.1	
.0	.0	.3	1.1	1.6	.6	.2	.1	.0	.2	3.8	
.0	.0	.0	.1	.1	.0	.0	.0	.0	.0	.0	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
.7	2	45	189	273	111	23	4	3	11	235	897
.8	.2	5.0	20.4	30.4	12.4	2.6	.4	.3	1.2	26.2	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE
OF CEILING HEIGHT (NM >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)							
	>10	>5	>2	>1	>1/2	>1/4	>50YD	>0
>6500	.9	1.3	1.3	1.4	1.4	1.6	1.6	1.6
>5000	1.2	1.8	1.8	1.9	1.9	2.0	2.0	2.0
>3500	3.2	4.3	4.3	4.4	4.4	4.6	4.6	4.6
>2000	11.9	16.0	16.6	16.7	16.7	16.8	16.8	16.8
>1000	33.4	46.3	47.3	47.6	47.6	47.7	47.7	47.7
>600	45.7	64.6	67.1	67.7	67.7	67.9	67.9	67.9
>300	48.2	69.1	72.1	72.7	72.7	72.9	72.9	72.9
>150	48.2	69.1	72.2	72.8	72.8	73.1	73.1	73.1
>0	48.4	69.3	72.6	73.1	73.2	73.9	73.9	73.9
TOTAL	436	624	653	658	659	665	665	665

TOTAL NUMBER OF OBSI 900

PCT FREQ NM <5/8: 26.1

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	OBSCD	TOTAL OBS
6.2	3.4	6.2	4.4	5.2	3.5	7.4	10.0	53.4	.4	1002

PERIOD: (PRIMARY) 1928-1977
(OVER-ALL) 1869-1977

SEPTEMBER

AREA 0033 PUNTA NEGRA
6.55 80.9W

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF PRECIPITATION WITH VARYING VALUES OF VISIBILITY													TOTAL OBS
VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.2	.5	*	.0	.0	.0	.0	.0	.7
	TOT %	.0	.0	.0	.2	.5	*	.0	.0	.0	.0	.0	.7
1/2<1	PCP	.0	.0	.0	.2	.3	.0	.0	.0	.0	.0	.0	.5
	NO PCP	.0	.0	.0	.4	.2	.0	.0	.0	.0	.0	.0	.5
	TOT %	.0	.0	.0	.5	.4	.0	.0	.0	.0	.0	.0	1.0
1<2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.2	.5	.0	.0	.0	.0	.0	.0	.7
	TOT %	.0	.0	.0	.2	.5	.0	.0	.0	.0	.0	.0	.7
2<5	PCP	.0	.0	.0	.2	.2	.0	.0	.0	.0	.0	.0	.4
	NO PCP	.0	.0	.1	1.2	1.9	.3	.0	.0	.0	.0	.0	3.6
	TOT %	.0	.0	.1	1.4	2.2	.3	.0	.0	.0	.0	.0	4.0
5<10	PCP	.0	.0	.1	1.1	.9	.2	.1	.0	.0	.0	.0	2.3
	NO PCP	.0	.0	.2	8.4	15.5	2.0	.3	.1	.0	.3	26.7	
	TOT %	.0	.0	.2	9.5	16.3	2.2	.3	.1	.0	.3	29.0	
10+	PCP	.0	.0	.0	*	.4	.0	.0	.0	.0	.0	.0	.4
	NO PCP	.1	*	.3	19.4	38.2	5.7	.1	*	.0	.3	64.1	
	TOT %	.1	*	.3	19.4	38.6	5.7	.1	*	.0	.3	64.5	
TOT OBS													1227
TOT PCT		.1	*	.7	31.2	58.6	8.3	.4	.1	.0	.7	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED WITH VARYING VALUES OF VISIBILITY													TOTAL OBS
VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.2	.4	*	.0	.0	.0	.0	.0	.5
	11-21	.0	.0	.0	.0	.2	*	.0	.0	.0	.0	.0	.2
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.2	.5	*	.0	.0	.0	.0	.0	.7
1/2<1	0-3	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.1
	4-10	.0	.0	.0	.4	.2	.0	.0	.0	.0	.0	.0	.6
	11-21	.0	.0	.0	.1	.1	.0	.0	.0	.0	.0	.0	.2
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.5	.4	.0	.0	.0	.0	.0	.0	.9
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.1	.2	.0	.0	.0	.0	.0	.0	.3
	11-21	.0	.0	.0	.2	.2	.0	.0	.0	.0	.0	.0	.3
	22+	.0	.0	.0	*	.1	.0	.0	.0	.0	.0	.0	.1
	TOT %	.0	.0	.0	.3	.5	.0	.0	.0	.0	.0	.0	.7
2<5	0-3	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.1
	4-10	.0	.0	.2	1.1	1.4	.1	.0	.0	.0	.0	.0	2.8
	11-21	.0	.0	.0	.6	.7	.2	.0	.0	.0	.0	.0	1.4
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.2	1.8	2.1	.3	.0	.0	.0	.0	.0	4.4
5<10	0-3	.0	.0	.0	.6	.5	.0	.0	.0	.0	.0	.3	1.3
	4-10	.0	.0	.2	4.9	8.0	.9	.2	.1	.0	.0	.0	14.2
	11-21	.0	.0	.0	3.1	5.8	1.1	.1	.0	.0	.0	.0	10.1
	22+	.0	.0	.0	.2	.4	.1	.0	.0	.0	.0	.0	.6
	TOT %	.0	.0	.2	8.8	14.6	2.0	.3	.1	.0	.3	26.3	
10+	0-3	.1	.0	.0	.5	1.4	.3	.0	*	.0	.6	2.9	
	4-10	.0	*	.5	12.2	21.6	2.8	.2	.1	.0	.0	.0	37.3
	11-21	.0	.0	.1	6.8	16.3	2.9	.0	.0	.0	.0	.0	26.1
	22+	.0	.0	.0	.2	.2	.3	.0	.0	.0	.0	.0	.7
	TOT %	.1	*	.5	19.8	39.5	6.3	.2	.1	.0	.6	67.0	
TOT OBS													1488
TOT PCT		.1	*	.9	31.3	57.6	8.6	.4	.2	.0	.9	100.0	

SEPTEMBER

PERIOD: (PRIMARY) 1928-1977
(OVER-ALL) 1809-1977

APEA 0033 PUNTA NEGRA
6.55 80.9W

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NM >4/8) AND
OCCURRENCE OF NM <5/8 BY HOUR

HOURL (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NM <5/8 ANY MGT	TOTAL OBS
00003	.4	0	5.5	17.6	24.7	9.4	2.7	.0	.0	1.6	62.0	38.0	255
06009	2.5	.0	3.9	19.1	32.8	8.8	2.0	.5	.5	2.5	72.5	27.5	204
12015	.4	.4	4.8	25.2	33.9	16.1	3.5	.9	.4	.4	86.1	13.9	230
18021	.0	.4	5.5	18.2	29.7	14.0	1.7	.4	.4	.4	70.8	29.2	236
TOT	7	2	46	185	278	112	23	4	3	11	671	254	925
PCT	.8	.2	5.0	20.0	30.1	12.1	2.5	.4	.3	1.2	72.5	27.5	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOURL (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.5	1.1	1.1	3.3	23.3	70.7	369
06009	1.2	.5	1.0	2.6	25.8	68.9	418
12015	.3	.9	.3	6.8	31.8	59.8	336
18021	.8	1.1	.5	5.3	25.3	66.9	375
TOT	11	13	11	66	396	1001	1498
PCT	.7	.9	.7	4.4	26.4	66.8	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR
CEILING HGT (FEET, NM >4/8) BY HOUR

HOURL (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND 5+	NM <5/8 AND 5+	TOTAL OBS
00003	.4	6.1	25.0	39.3	35.7	244
06009	2.5	6.5	27.6	47.2	25.1	199
12015	.4	5.7	34.1	53.3	12.7	229
18021	.0	7.0	27.6	46.1	26.3	228
TOT	7	57	257	417	226	900
PCT	.8	6.3	28.6	46.3	25.1	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
80/84	.0	.0	.0	.1	.0	.0	.4	.0	5	.4
75/79	.0	.0	.0	.1	.4	.1	.9	.0	21	1.9
70/74	.0	.0	.0	.6	2.2	2.5	1.2	.0	73	6.6
65/69	.0	.0	.0	.0	.2	3.5	15.8	13.1	363	32.0
60/64	.0	.0	.0	.0	.0	2.1	25.8	27.2	613	55.0
55/59	.0	.0	.0	.0	.0	.1	.5	2.9	39	3.5
TOTAL	0	0	0	2	13	93	502	304	1114	100.0
PCT	.0	.0	.0	.2	1.2	8.3	45.1	49.2		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
80/84	.0	.0	.0	.1	.2	.2	.0	.0	.0	.0
75/79	.0	.0	.1	.3	1.0	.5	.0	.0	.0	.0
70/74	.0	.0	.0	2.0	3.2	1.1	.2	.1	.0	.0
65/69	.0	.0	.2	9.6	19.9	2.6	.1	.0	.0	.3
60/64	.1	.0	.4	18.7	31.9	3.6	.2	*	.0	.3
55/59	.0	.0	.0	1.4	1.8	.2	.0	.0	.0	.0
TOTAL	.1	.0	.7	32.1	58.0	8.1	.4	.1	.0	.5

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOURL (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	79	73	69	64	60	59	58	64.2	493
06009	82	70	68	63	59	58	57	63.2	590
12015	79	76	69	63	60	58	58	63.8	439
18021	82	80	75	66	61	60	58	67.1	582
TOT	82	77	71	64	60	59	57	64.0	2104

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOURL (GMT)	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	.3	.0	.0	.0	5.1	48.6	45.9	88	294
06009	.0	.4	.0	.0	.0	6.5	39.8	53.4	89	279
12015	.0	.0	.4	.0	.0	4.7	41.2	53.6	89	274
18021	.0	.0	.4	.0	.0	4.3	17.8	49.8	84	281
TOT	0	2	13	.0	.0	96	507	510	88	1128

SEPTEMBER

PERIOD: (PRIMARY) 1928-1977
(OVER-ALL) 1869-1977

AREA 0033 PUNTA NEGRA
6.55 80.9W

TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	57 NO	61 64	65 68	69 72	73 76	77 80	81 84	TOT	W FOG	WD FOG
17/19	.0	.0	.0	.0	.0	.0	.3	3	.0	.3
14/16	.0	.0	.1	.1	.0	.2	.0	4	.0	.4
11/13	.0	.1	.1	.0	.2	.2	.0	6	.0	.5
9/10	.0	.2	.1	.4	.4	.1	.0	14	.1	1.2
7/8	.1	.4	.4	1.8	.4	.1	.0	36	.1	3.1
5	.0	.2	1.1	.4	.4	.0	.0	24	.2	2.0
4	.1	.3	1.2	.3	.1	.0	.0	24	.1	2.0
3	.1	.9	2.4	.6	.0	.0	.0	45	.0	4.0
2	.3	3.3	2.8	.3	.0	.0	.0	75	.4	6.2
1	1.0	6.4	4.5	1.0	.1	.1	.0	147	1.2	11.8
0	1.4	10.5	4.3	.3	.0	.1	.0	186	1.5	15.0
-1	2.8	9.3	5.5	.5	.0	.0	.0	204	1.2	16.9
-2	1.5	6.1	2.8	.4	.0	.0	.0	121	.8	10.0
-3	1.1	3.9	2.2	.3	.0	.3	.1	88	.1	7.7
-4	.4	1.9	1.3	.3	.1	.1	.1	47	.2	4.0
-5	.3	1.7	1.2	.4	.0	.0	.0	40	.0	3.6
-6	.4	1.1	.9	.1	.2	.1	.0	25	.0	2.2
-7	.0	.7	.5	.0	.0	.0	.0	14	.0	1.2
-8	.0	.2	.5	.1	.0	.0	.0	9	.0	.8
-9/-10	.3	.3	.1	.0	.0	.0	.0	7	.0	.6
-11/-13	.1	.1	.1	.0	.0	.0	.0	3	.0	.3
-14/-16	.0	.1	.0	.0	.0	.0	.0	1	.0	.1
TOTAL	110	534	356	84	21	13	5	1123	6.0	1056
PCT	9.8	47.6	31.7	7.5	1.9	1.2	.4	100.0	6.0	94.0

PERIOD: (OVER-ALL) 1963-1977

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.2	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.2	.0	.0	.0	.2	.8	1.4	.0	.0	.0	.0	2.2
1-2	.0	.0	.0	.0	.0	.0	.0	.7	11.2	1.9	.0	.0	.0	13.7
3-4	.0	.0	.0	.0	.0	.0	.0	.0	3.8	6.6	.4	.0	.0	10.8
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.3	3.4	.2	.0	.0	3.9
7	.0	.0	.0	.0	.0	.0	.0	.0	.2	1.0	.0	.0	.0	1.2
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	.0	.0	.0	.3
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.2
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.0	.2	.0	.0	.0	.2	1.5	16.8	13.4	.6	.0	.0	32.4

PERIOD: (OVER-ALL) 1963-1977

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TABLE 19 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	2.8	.0	.0	.0	.0	2.8	.0	1.1	.0	.0	.0	.0	.1
1-2	.0	12.1	4.8	.0	.0	.0	17.4	.2	1.3	1.1	.0	.0	.0	2.6
3-4	.0	9.5	11.4	.6	.0	.0	21.7	.0	1.5	1.2	.4	.0	.0	3.1
5-6	.0	1.8	9.4	.0	.0	.0	11.2	.0	.5	1.4	.0	.0	.0	1.9
7	.0	1.5	2.3	.2	.0	.0	4.0	.0	.0	.5	.1	.0	.0	.5
8-9	.0	.4	.7	.0	.0	.0	1.1	.0	.0	.3	.0	.0	.0	.3
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.6	28.1	28.4	.8	.0	.0	58.2	.2	3.3	4.4	.5	.0	.0	8.5

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1	.1
3-4	.0	.0	.3	.0	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.0	.3	.0	.0	.0	.3	.1	.0	.0	.0	.0	.0	.1	99.8

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	1.1	4.2	.2	.0	.0	.0	5.5	
1-2	1.9	24.4	7.8	.0	.0	.0	34.1	
3-4	.2	14.7	19.6	1.5	.0	.0	36.0	
5-6	.0	2.5	14.1	.2	.0	.0	16.8	
7	.0	1.7	3.8	.2	.0	.0	5.7	
8-9	.0	.4	1.3	.0	.0	.0	1.7	
10-11	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.2	.0	.0	.0	.2	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	3.2	48.0	46.9	1.9	.0	.0	100.0	475

PERIOD: (OVER-ALL) 1949-1977

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	1.5	10.0	17.2	10.0	2.6	.7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	343	3
6-7	.0	1.0	6.5	13.5	6.1	.7	.6	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	235	5
8-9	.0	.4	4.4	3.8	3.4	1.3	.4	.4	.2	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	120	6
10-11	.0	.5	1.0	.9	.7	1.0	.5	.4	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	41	6
12-13	.0	.0	1.1	.5	1.1	.1	.0	.1	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	25	6
>13	.0	.0	.0	.1	.5	.1	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	7	8
INDFT	1.0	1.5	1.7	1.1	.1	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	45	3
TOTAL	20	109	260	244	119	33	13	10	4	4	0	0	0	0	0	0	0	0	0	816	4
PCT	2.5	13.4	31.9	29.9	14.6	4.0	1.6	1.2	.5	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	

PERIOD: (PRIMARY) 1929-1977
(OVER-ALL) 1868-1977

OCTOBER

AREA 0033 PUNTA NEGRA
6.45 81.0W

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

PRECIPITATION TYPE										OTHER WEATHER PHENOMENA					
WIND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST BLWG SNOW	NO SIG WEA
N	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	20.0	.0	.0	.0	80.0
NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
E	.0	.0	4.1	.0	.0	.0	.0	4.1	.0	.0	6.1	.0	16.3	.0	73.5
SE	.4	.0	3.9	.0	.0	.0	.0	3.9	.7	.0	6.7	.0	3.8	.0	84.9
S	.6	.4	3.2	.0	.0	.0	.1	4.0	1.0	.1	3.7	.1	3.9	.0	87.3
SW	1.0	.0	.5	.0	.0	.0	.2	1.7	.2	1.2	1.2	.0	3.9	.0	92.0
W	.0	.0	.0	.0	.0	.0	.0	.0	.0	19.0	.0	.0	.0	.0	81.0
NW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	80.0	.0	20.0
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	18.2	.0	9.1	.0	72.7
TOT PCT	.6	.2	3.1	.0	.0	.0	.1	3.7	.8	.2	4.6	.1	4.1	.0	86.6
TOT OBS:	1249														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA								
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
00003	.6	.3	1.6	.0	.0	.0	.3	2.5	.6	.3	3.2	.3	3.8	.0		89.6
06009	.7	.3	4.0	.0	.0	.0	.0	4.7	.3	.7	3.3	.0	2.3	.0		88.7
12015	.6	.3	5.7	.0	.0	.0	.0	6.3	1.9	.3	7.9	.0	6.3	.0		77.2
18021	.3	.0	1.8	.0	.0	.0	.0	1.8	.3	.0	3.6	.0	3.8	.0		90.5
TOT PCT	.6	.2	3.2	.0	.0	.0	.1	3.8	.8	.3	4.5	.1	4.1	.0		86.5
TOT OBS:	1271															

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WNO DIR	WIND SPEED (KNOTS)							48+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)						
	0-3	4-10	11-21	22-33	34-47	00	03					06	09	12	15	18	21	
N	.3	.1	.0	.0	.0	.0	.4	2.7	.2	.0	.0	.8	.4	.0	.8	.0		
NE	.0	.2	.0	.0	.0	.0	.2	4.7	.0	.0	.3	.8	.5	.0	.0	.0		
E	.3	.7	.7	.0	.0	.0	1.7	9.7	.9	.0	.9	1.6	2.7	2.1	2.3	1.5		
SE	1.7	19.8	9.2	.2	.0	.0	31.0	9.2	23.3	33.3	28.8	27.9	39.3	52.1	33.6	25.8		
S	2.9	31.8	19.9	.3	.0	.0	54.9	9.6	61.0	45.8	58.5	49.4	48.1	32.3	55.4	53.4		
SW	2.0	4.0	3.3	.1	.0	.0	9.3	8.9	12.4	20.8	9.9	14.1	4.9	13.5	6.5	15.7		
W	.1	.4	.1	.0	.0	.0	.6	7.0	.9	.0	.3	1.6	.7	.0	.2	1.5		
NW	.1	.2	.0	.0	.0	.0	.3	4.5	.2	.0	.0	.8	.6	.0	.1	1.0		
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
CALM	1.6						1.6	.0	.9	.0	1.5	3.1	2.8	.0	1.1	1.0		
TOT OBS	175	1111	643	10	0	0	1939		9.3	422	18	399	129	391	24	459	97	
TOT PCT	9.0	57.3	33.2	.5	0	0		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	

TABLE 3A

WNO DIR	0-6	WIND SPEED (KNOTS)				41+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)			
		7-16	17-27	28-40	00 03					06 09	12 15	18 21	
N	.4	.0	.0	.0	.0	.4	2.7	.2	.2	.4	.6		
NE	.2	.0	.0	.0	.0	.2	4.7	.0	.4	.5	.0		
E	.6	.8	.3	.0	.0	1.7	9.7	.9	1.0	2.7	2.2		
SE	9.6	19.6	1.8	.0	.0	31.0	9.2	23.8	28.8	40.1	32.2		
S	14.8	36.2	2.9	.0	.0	54.9	9.6	60.4	56.3	47.2	55.1		
SW	3.9	4.3	1.2	.0	.0	.0	9.3	8.9	12.8	10.9	5.4		
W	.3	.2	.0	.0	.0	.0	7.0	.9	.6	.7	.4		
NW	.3	.0	.0	.0	.0	.0	4.5	.2	.2	.6	.3		
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
CALM	1.6						1.6	.0	.9	1.9	2.7		
TOT OBS	612	1186	141	0	0	1939		9.3	440	528	415		
TOT PCT	31.6	61.2	7.3	.0	.0		100.0		100.0	100.0	100.0		

PERIOD: (PRIMARY) 1929-1977
(OVER-ALL) 1868-1977

OCTOBER

AREA 0033 PUNTA NEGRA
6.45 81.0W

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	WIND SPEED (KNOTS)						MEAN	PCT FREQ	TOTAL OBS
		1-3	4-10	11-21	22-33	34-47	48+			
0000Z	.9	7.3	53.2	38.2	.5	.0	.0	9.9	100.0	440
0600Z	1.9	6.8	57.2	33.5	.6	.0	.0	9.3	100.0	528
1200Z	2.7	7.0	60.0	29.4	1.0	.0	.0	9.0	100.0	415
1800Z	1.1	8.5	58.6	31.7	.2	.0	.0	9.0	100.0	556
TOT	31	144	1111	643	10	0	0	9.3		1939
PCT	1.6	7.4	57.3	33.2	.5	.0	.0		100.0	

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)
BY WIND DIRECTION

WIND DIR	PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)					MEAN CLOUD COVER
	0-2	3-4	5-7	8 & OBS	TOTAL OBS	
N	.0	.0	.1	.1		6.5
NE	.0	.0	.2	.0		6.5
E	.0	.0	.5	.5		7.4
SE	2.5	1.3	5.8	19.8		6.9
S	6.9	5.3	14.1	33.4		6.2
SW	1.8	.7	1.4	7.4		5.1
W	.1	.0	.2	.0		3.9
NW	.0	.0	.0	.1		7.8
VAR	.0	.0	.0	.0		.0
CALM	.2	.0	.1	.4		5.7
TOT OBS	128	69	214	540	951	6.3
TOT PCT	13.5	7.3	22.5	56.8	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8)
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

000	150	300	600	1000	2000	3500	5000	6500	8000+	NH <5/8 ANY HGT	TOTAL OBS
149	299	599	999	1999	3499	4999	6499	7999			
.0	.0	.0	.0	.0	.1	.0	.0	.0	.1	.0	
.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	
.0	.1	.1	.1	.3	.2	.1	.1	.1	.0	.0	
.2	.3	1.5	4.9	10.6	2.7	.7	.2	.5	.3	.5	
.7	.4	2.4	11.1	17.7	5.7	1.0	.5	.4	.7	20.9	
.1	.1	.1	1.4	1.2	.2	.0	.1	.0	.0	3.2	
.0	.0	.0	.0	.1	.1	.0	.0	.0	.0	.2	
.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
.0	.0	.0	.2	.3	.0	.0	.0	.0	.0	.2	
.0	.8	39	178	286	88	17	8	9	11	297	951
1.1	.8	4.1	18.7	30.1	9.3	1.8	.8	.9	1.2	31.2	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE
OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)			VSBY (NM)			VSBY (NM)		
	>10	>5	>2	>1	>1/2	>1/4	>30YD	>10	>0
NH >6500	1.6	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.2
NH >5000	1.9	2.9	3.0	3.0	3.0	3.0	3.0	3.0	3.0
NH >3500	3.5	4.8	4.9	4.9	4.9	4.9	4.9	4.9	4.9
NH >2000	10.6	13.5	14.0	14.0	14.0	14.2	14.2	14.2	14.2
NH >1000	31.8	42.0	44.2	44.4	44.4	44.5	44.5	44.5	44.5
NH >600	42.8	59.5	62.9	63.1	63.1	63.2	63.2	63.2	63.2
NH >300	45.0	63.5	66.8	67.0	67.0	67.1	67.1	67.1	67.1
NH >150	45.5	64.2	67.6	67.8	67.8	68.0	68.0	68.0	68.0
NH >0	45.6	64.8	68.4	68.7	68.9	69.0	69.0	69.0	69.0
TOTAL	438	623	657	660	662	663	663	663	663

TOTAL NUMBER OF OBS: 961

PCT FREQ NH <5/8: 31.0

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	OBS	TOTAL OBS
8.4	4.7	6.7	4.4	6.0	3.6	7.5	10.3	47.7	.7	1056

PERIOD: (PRIMARY) 1929-1977
(OVER-ALL) 1868-1977

OCTOBER

AREA 0033 PUNTA NEGRA
6.4S 81.0W

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.1	.0	.1	.1	.1	.0	.0	.0	.0	.0	.0	.3
	TOT %	.1	.0	.1	.1	.1	.0	.0	.0	.0	.0	.0	.3
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.1	.1	.0	.0	.0	.0	.1	.1	.2
	TOT %	.0	.0	.0	.1	.1	.0	.0	.0	.0	.1	.1	.2
1<2	PCP	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.2
	NO PCP	.0	.0	.0	.2	.2	.0	.0	.0	.0	.0	.0	.2
	TOT %	.0	.0	.0	.2	.4	.0	.0	.0	.0	.0	.0	.4
2<5	PCP	.0	.0	.0	.3	.7	.0	.0	.0	.0	.0	.0	1.1
	NO PCP	.0	.0	.1	1.4	1.5	.2	.0	.1	.0	.1	.3	3.3
	TOT %	.0	.0	.1	1.7	2.2	.2	.0	.1	.0	.1	.4	4.4
5<10	PCP	.0	.0	.0	.8	1.2	.0	.0	.0	.0	.0	.0	2.0
	NO PCP	.2	.1	.5	8.1	15.0	1.9	.2	.0	.0	.4	26.4	26.4
	TOT %	.2	.1	.5	8.9	16.2	1.9	.2	.0	.0	.4	28.4	28.4
10+	PCP	.0	.0	.0	.0	.4	.1	.0	.0	.0	.0	.0	.5
	NO PCP	.2	.2	.3	19.0	40.6	5.0	.3	.0	.0	.3	65.8	65.8
	TOT %	.2	.2	.3	19.0	41.0	5.1	.3	.0	.0	.3	66.3	66.3
TOT OBS													1293
TOT PCT		.4	.2	1.0	29.8	59.9	7.2	.4	.1	.0	.9	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1
	4-10	.0	.0	.0	.1	.2	.0	.0	.0	.0	.0	.3	.3
	11-21	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.1	.1
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.1	.0	.1	.1	.2	.0	.0	.0	.0	.0	.5	.5
1/2<1	0-3	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1	.2	.2
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	11-21	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1	.1
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.1	.1	.0	.0	.0	.0	.1	.3	.3
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.1	.4	.0	.0	.0	.0	.0	.5	.5
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.2	.5	.0	.0	.0	.0	.0	.6	.6
2<5	0-3	.0	.0	.0	.1	.3	.0	.0	.0	.0	.1	.5	.5
	4-10	.0	.0	.0	1.5	1.3	.0	.0	.1	.0	.0	2.9	2.9
	11-21	.0	.0	.1	.4	.5	.2	.0	.0	.0	.0	1.1	1.1
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.1	2.0	2.1	.2	.0	.1	.0	.1	4.5	4.5
5<10	0-3	.1	.0	.2	.5	1.1	.3	.1	.0	.0	.6	2.9	2.9
	4-10	.0	.1	.3	5.6	8.0	.7	.1	.0	.0	.0	14.8	14.8
	11-21	.0	.0	.1	2.5	6.3	.9	.0	.0	.0	.0	9.9	9.9
	22+	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1	.1
	TOT %	.1	.1	.5	8.7	15.5	2.0	.2	.0	.0	.6	27.7	27.7
10+	0-3	.1	.0	.0	.5	1.6	.5	.1	.0	.0	.3	3.1	3.1
	4-10	.1	.1	.1	11.8	22.9	2.8	.1	.0	.0	.0	37.9	37.9
	11-21	.0	.0	.3	6.9	15.3	2.4	.1	.0	.0	.0	24.9	24.9
	22+	.0	.0	.0	.1	.2	.1	.0	.0	.0	.0	.4	.4
	TOT %	.1	.1	.4	19.3	40.0	5.8	.3	.0	.0	.3	66.4	66.4
TOT OBS													1468
TOT PCT		.3	.2	1.1	30.3	58.3	8.0	.5	.1	.0	1.2	100.0	

PERIOD: (PRIMARY) 1929-1977
(OVER-ALL) 1868-1977

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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET) NH >4/8) AND
OCCURRENCE OF NH <5/8 BY HOUR

HOURL (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY MGT	TOTAL OBS
00003	.0	.8	4.0	16.1	27.3	7.2	1.6	1.0	.8	.8	60.2	39.8	249
06009	2.3	1.4	5.5	17.3	32.7	10.5	1.8	.9	.5	.9	73.6	26.4	220
12015	1.9	1.2	3.5	22.9	32.2	10.1	2.3	.0	1.6	1.6	77.1	22.9	258
18021	.0	.0	3.1	16.3	27.2	8.6	1.6	.8	1.2	1.2	59.9	40.1	257
TOT	10	8	39	179	293	89	18	8	10	11	665	319	984
PCT	1.0	.8	4.0	18.2	29.8	9.0	1.8	.8	1.0	1.1	67.6	32.4	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOURL (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.8	.0	.3	3.4	24.0	71.5	358
06009	.3	.5	1.0	3.0	28.1	67.1	398
12015	.6	.9	.9	7.8	32.4	57.0	344
18021	.0	.0	.8	3.9	26.0	69.3	388
TOT	6	5	11	66	412	988	1488
PCT	.4	.3	.7	4.4	27.7	66.4	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR
CEILING HGT (FEET) NH >4/8) BY HOUR

HOURL (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND 5+	NH <5/8 AND 5+	TOTAL OBS
00003	.0	5.4	23.7	39.4	36.9	241
06009	2.3	9.1	28.3	45.7	26.0	219
12015	2.0	6.7	34.8	44.3	20.9	253
18021	.0	3.2	23.4	39.1	37.5	248
TOT	10	58	265	404	292	961
PCT	1.0	6.0	27.6	42.0	30.4	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
85/89	.0	.0	.0	.1	.0	.0	.0	.0	1	.1
80/84	.0	.0	.0	.0	.2	.0	.1	.0	3	.3
75/79	.0	.1	.0	.0	.6	.2	.1	.1	11	1.1
70/74	.0	.0	.0	.2	.9	2.6	2.7	1.2	78	7.5
65/69	.0	.0	.0	.0	.7	6.8	10.4	11.8	403	38.6
60/64	.0	.0	.0	.0	.0	1.8	21.2	27.6	528	50.6
55/59	.0	.0	.0	.0	.0	.1	.4	1.3	19	1.8
TOTAL	0	1	0	3	24	120	457	438	1043	100.0
PCT	.0	.1	.0	.3	2.3	11.5	43.8	42.0		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
85/89	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0
80/84	.0	.0	.0	.0	.2	.1	.0	.0	.0	.0
75/79	.0	.0	.0	.3	.6	.2	.0	.0	.0	.0
70/74	.1	.0	.0	2.1	4.3	1.0	.0	.0	.0	.0
65/69	.1	.2	1.1	12.3	21.9	2.4	.2	.1	.0	.3
60/64	.3	.1	.4	16.1	30.2	2.7	.2	.0	.0	.7
55/59	.0	.0	.0	.4	1.1	.1	.2	.0	.0	.0
TOTAL	.5	.3	1.6	31.2	58.3	6.4	.6	.1	.0	1.0

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOURL (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	85	73	70	64	61	59	55	64.9	436
06009	77	71	68	64	60	59	56	63.7	520
12015	80	72	70	64	60	59	58	64.1	406
18021	82	78	74	68	62	60	58	67.9	532
TOT	85	76	72	65	60	59	55	65.2	1894

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOURL (GMT)	0-29	30-39	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	.8	1.2	9.3	47.9	40.9	88	259
06009	.0	.0	1.1	5.2	39.4	54.3	89	269
12015	.0	.0	.4	8.8	37.2	53.6	89	261
18021	.0	.7	6.6	22.4	50.4	19.9	82	272
TOT	0	4	25	122	464	446	87	1061

PERIOD: (PRIMARY) 1929-1977
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TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	53 56	57 60	61 64	65 68	69 72	73 76	77 80	81 84	85 88	TOT	W FOG	WD FOG
14/16	.0	.0	.0	.1	.3	.1	.0	.1	.0	6	.0	.5
11/13	.0	.0	.5	.1	.5	.1	.1	.0	.0	15	.0	1.3
9/10	.0	.0	.6	.3	.4	.7	.2	.0	.0	25	.1	2.0
7/8	.0	.1	.3	1.0	1.0	.4	.0	.0	.0	34	.0	2.9
6	.0	.0	.2	.7	.7	.2	.0	.0	.1	21	.0	1.8
5	.0	.0	.7	1.8	.9	.2	.1	.0	.0	43	.0	3.7
4	.0	.0	1.0	3.3	1.2	.3	.0	.0	.0	68	.3	5.5
3	.0	.3	2.6	2.3	1.2	.1	.0	.0	.0	99	.4	7.1
2	.0	.3	4.9	3.6	1.5	.2	.0	.0	.0	122	.8	9.6
1	.0	1.3	8.0	4.9	.9	.1	.0	.0	.0	179	.6	14.6
0	.0	2.4	9.0	7.0	.7	.1	.0	.0	.0	225	1.4	17.8
-1	.0	.9	4.4	3.1	.3	.0	.0	.0	.0	102	.4	8.3
-2	.0	.6	3.3	3.4	.6	.0	.0	.0	.0	93	.3	7.7
-3	.0	.2	1.6	1.2	.3	.0	.1	.0	.0	39	.1	3.2
-4	.1	.3	1.2	.9	.7	.2	.1	.0	.0	40	.2	3.2
-5	.0	.0	.8	.7	.4	.0	.0	.0	.0	20	.2	1.5
-6	.0	.2	.5	.4	.1	.0	.0	.0	.0	20	.0	1.7
-7/-8	.0	.2	.3	.6	.1	.1	.1	.0	.0	16	.0	1.4
-9/-10	.0	.2	.3	.4	.1	.0	.0	.0	.0	12	.0	1.0
-11/-13	.0	.0	.3	.0	.0	.0	.0	.0	.0	4	.1	.3
-14/-16	.0	.0	.2	.0	.0	.0	.0	.0	.0	2	.0	.2
TOTAL	1	80	480	437	138	30	7	1	1	1175	55	1120
PCT	.1	6.8	40.9	37.2	11.7	2.6	.6	.1	.1	100.0	4.7	95.3

PERIOD: (OVER-ALL) 1963-1977

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
41	.2	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.2
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.2	.0	.0	.0	.0	.0	.2	.0	.2	.0	.0	.0	.0	.2

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
41	.3	.0	.0	.0	.0	.0	.3	.3	.8	.1	.0	.0	.0	1.2
1-2	.2	.4	.2	.0	.0	.0	.7	.1	10.8	2.2	.0	.0	.0	13.1
3-4	.0	.0	.4	.0	.0	.0	.4	.0	5.5	6.1	.0	.0	.0	11.6
5-6	.0	.0	.2	.0	.0	.0	.2	.0	1.3	1.4	.0	.0	.0	2.7
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.2	.2	.0	.0	1.4
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.5	.4	.7	.0	.0	.0	1.6	.4	18.3	10.8	.2	.0	.0	29.9

PERIOD: (OVER-ALL) 1963-1977

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TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.8	2.3	.2	.0	.0	.0	3.3	.0	.1	.0	.0	.0	.0	.1
1-2	1.8	15.0	8.1	.0	.0	.0	24.8	.3	.7	1.2	.0	.0	.0	2.2
3-4	.0	10.8	11.0	.0	.0	.0	21.8	.0	1.2	1.9	.0	.0	.0	3.1
5-6	.0	1.0	7.4	.2	.0	.0	8.6	.0	.4	.9	.0	.0	.0	1.4
7	.0	.2	.9	.2	.0	.0	1.4	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.4	.2	.0	.0	.6	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	2.6	29.3	27.9	.6	.0	.0	60.5	.3	2.4	4.1	.0	.0	.0	6.7

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
3-4	.0	.2	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.0	.2	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	99.4

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	2.5	3.2	.2	.0	.0	.0	5.9	
1-2	2.3	26.9	11.6	.0	.0	.0	40.8	
3-4	.0	17.9	19.3	.0	.0	.0	37.2	
5-6	.0	2.7	9.9	.2	.0	.0	12.8	
7	.0	.2	2.1	.4	.0	.0	2.7	
8-9	.0	.0	.4	.2	.0	.0	.6	
10-11	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	4.8	50.8	43.5	.8	.0	.0	100.0	476

PERIOD: (OVER-ALL) 1949-1977

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<5	1.2	11.9	21.2	8.0	1.8	.5	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	380
6-7	.0	1.5	9.0	10.2	4.1	1.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	224
8-9	.0	.0	2.2	3.1	3.5	2.0	.6	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	99
10-11	.0	.0	2.5	2.5	1.8	.9	.4	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	72
12-13	.0	.0	.7	.6	.7	.2	.2	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	23
>13	.0	.0	.0	.5	.4	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	9
INDET	1.1	.8	1.3	1.5	.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	45
TOTAL	19	123	315	224	109	41	13	5	2	0	0	0	1	0	0	0	0	0	0	0	852
PCT	2.2	14.4	37.0	26.3	12.8	4.8	1.5	.6	.2	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	100.0

PERIOD: (PRIMARY) 1931-1977
(OVER-ALL) 1869-1977

NOVEMBER

AREA 0033 PUNTA NEGRA
6.45 81.1W

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

PRECIPITATION TYPE										OTHER WEATHER PHENOMENA					
WIND DIR	RAIN	RAIN SHWK	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THOR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
N	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
E	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3.8	.0	7.7	.0	88.5
SE	.0	.0	.5	.0	.0	.0	.5	.9	.3	.0	3.2	.1	4.9	.0	90.6
S	.1	.1	.5	.0	.0	.0	.2	1.0	.5	.0	2.4	.1	5.4	.0	90.5
SW	.2	.0	.0	.0	.0	.0	.4	.6	1.6	.0	4.4	.0	2.2	.0	91.3
W	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
NW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	2.9	.0	.0	.0	.0	2.9	.0	.0	5.9	.0	14.7	.0	76.5
TOT PCT	.1	.1	.5	.0	.0	.0	.3	1.0	.5	.0	2.9	.1	5.1	.0	90.4
TOT OBS:	1364														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THOR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST BLWG SNOW	NO SIG WEA
00603	.0	.0	.8	.0	.0	.0	.3	1.1	.5	.3	2.2	.0	4.5	.0	91.4
06609	.0	.0	.0	.0	.0	.0	.3	.3	.9	.0	2.8	.0	3.7	.0	92.3
12615	.0	.3	.8	.0	.0	.0	.0	1.1	.5	.0	3.8	.3	5.2	.0	89.1
18621	.3	.0	.3	.0	.0	.0	.6	1.2	.0	.0	3.6	.0	6.8	.0	88.5
TOT PCT	.1	.1	.5	.0	.0	.0	.3	.9	.5	.1	3.1	.1	5.1	.0	90.3
TOT OBS:	1402														

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							48+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)						
	0-3	4-10	11-21	22-33	34-47		00					03	06	09	12	15	18	21
N	*	.1	*	.0	.0	.0		.1	6.8		.0	.0	.0	.8	.2	.0	.1	.5
NE	.2	.3	*	.0	.0	.0		.5	5.1		.2	.0	.9	1.2	.2	.0	.7	.5
E	.3	1.2	.4	.0	.0	.0		1.9	7.5		.6	1.7	.9	2.7	3.7	4.8	2.0	.0
SE	2.4	23.1	7.2	.1	.0	.0		32.8	8.4		24.4	38.8	27.4	36.0	40.6	50.5	38.5	22.5
S	3.5	29.7	15.3	.4	.0	.0		50.8	8.9		61.9	52.6	53.7	38.0	42.4	34.6	47.9	59.4
SW	.9	5.5	3.3	.1	.0	.0		9.8	9.3		11.3	3.4	11.6	11.6	7.2	8.0	8.1	14.4
W	.1	.6	.3	.0	.0	.0		1.0	8.7		.9	.0	1.3	2.3	.8	2.1	.2	1.8
NW	.1	*	.0	.0	.0	.0		.1	3.3		.1	.0	.0	.4	.3	.0	.2	.0
VAR	.0	.0	.0	.0	.0	.0		.0	.0		.0	.0	.0	.0	.0	.0	.0	.0
CALM	2.9							2.9	.0		.4	3.4	4.2	7.0	4.6	.0	2.2	.9
TOT OBS	256	1245	544	11	0	0	2056		8.5		463	29	409	129	417	47	453	109
TOT PCT	12.5	60.6	26.5	.5	.0	.0		100.0			100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)				TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)			
	0-6	7-16	17-27	28-40				00	03	06	18
N	.1	*	*	.0	.0	.1	6.8	.0	.2	.2	.2
NE	.4	.1	*	.0	.0	.5	5.1	.2	.9	.2	.6
E	1.0	.9	*	.0	.0	1.9	7.5	.8	1.3	3.8	1.6
SE	11.6	20.3	1.0	.0	.0	32.8	8.4	25.3	29.5	41.6	35.4
S	18.9	28.7	3.2	*	.0	50.8	8.9	61.4	49.9	41.6	50.1
SW	3.4	5.7	.7	.0	.0	9.8	9.3	10.8	11.6	7.3	9.3
W	.4	.5	.1	.0	.0	1.0	8.7	.9	1.6	.9	.5
NW	.1	*	.0	.0	.0	.1	3.3	.1	.1	.3	.2
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	2.9					2.9	.0	.6	4.8	4.1	2.0
TOT OBS	795	1156	104	1	0	2056		492	538	464	562
TOT PCT	38.7	56.2	5.1	*	.0	100.0		100.0	100.0	100.0	100.0

NOVEMBER

PERIOD: (PRIMARY) 1931-1977
(OVER-ALL) 1869-1977

AREA 0033 PUNTA NEGRA
6.45 81.1W

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)				48+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47					
0000Z	.6	6.7	59.3	32.7	.6	.0	.0	.0	9.4	100.0	492
0600Z	4.8	10.4	56.7	25.5	.6	.0	.0	.0	8.1	100.0	538
1200Z	4.1	12.1	62.9	20.7	.2	.0	.0	.0	7.7	100.0	464
1800Z	2.0	9.3	61.4	26.7	.7	.0	.0	.0	8.6	100.0	562
TOT	59	197	1245	544	11	0	0	0	8.5		2056
PCT	2.9	9.6	60.6	26.5	.5	.0	.0	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8-6 OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	.0	.0	.0	.0		.0
NE	.1	.1	.0	.2		4.8
E	.2	.1	.4	.9		6.2
SE	6.1	4.2	9.8	12.5		5.5
S	13.3	7.2	14.6	18.0		5.1
SW	2.5	1.3	2.3	2.5		4.7
W	.0	.3	.2	.2		5.7
NW	.1	.0	.0	.0		2.0
VAR	.0	.0	.0	.0		.0
CALM	.0	.1	1.1	1.1		6.1
TOT OBS	230	135	289	358	1012	5.2
TOT PCT	22.7	13.3	28.6	35.4	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8)
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+ NH <5/8	TOTAL ANY HGT OBS
N	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
NE	.0	.0	.0	.0	.0	.1	.0	.0	.0	.1	.2
E	.0	.0	.0	.4	.4	.1	.1	.0	.0	.2	.5
SE	.7	.7	4.2	6.4	3.9	1.1	.2	.2	1.0	14.1	
S	.3	.2	1.6	5.5	8.0	5.7	1.9	.2	.4	1.4	28.2
SW	.0	.0	.3	.7	.9	.7	.5	.0	.1	.3	5.0
W	.0	.0	.0	.1	.1	.2	.0	.0	.0	.0	.3
NW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.1	.5	.9	.4	.4	.0	.0	.0	.8
TOT OBS	6	9	27	115	169	112	36	4	7	31	498
TOT PCT	.4	.9	2.7	11.4	16.7	11.1	3.6	.4	.7	3.1	49.2

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE
OF CEILING HEIGHT (NH >4/8) AND VSBY (NH)

CEILING (FEET)	VSBY (NH)							
	= OR >10	= OR >5	= OR >2	= OR >1	= OR >1/2	= OR >1/4	= OR >50YD	= OR >0
= OR >6500	2.4	3.5	3.8	3.8	3.8	3.8	3.8	3.8
= OR >5000	2.8	3.9	4.2	4.2	4.2	4.2	4.2	4.2
= OR >3500	4.3	7.1	7.7	7.7	7.7	7.7	7.7	7.7
= OR >2000	11.9	18.0	18.7	18.8	18.9	18.9	18.9	18.9
= OR >1000	23.6	34.2	35.5	35.6	35.7	35.7	35.7	35.7
= OR >600	30.3	44.9	46.8	46.9	47.0	47.0	47.0	47.0
= OR >300	31.3	47.3	49.4	49.5	49.6	49.6	49.6	49.6
= OR >150	31.4	47.6	50.3	50.4	50.5	50.5	50.5	50.5
= OR >0	31.4	47.6	50.5	50.8	50.9	50.9	50.9	50.9
TOTAL	325	493	523	526	527	527	527	527

TOTAL NUMBER OF OBS 1035

PCT FREQ NH <5/8 49.1

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

	0	1	2	3	4	5	6	7	8 OBSCD	TOTAL OBS
	17.7	8.6	8.7	7.3	6.1	4.0	6.8	10.2	30.3	1113

PERIOD: (PRIMARY) 1931-1977
(OVER-ALL) 1869-1977

NOVEMBER

AREA 0033 PUNTA NEGRA
6.4S 81.1W

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL Obs
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1	
	TOT %	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1	
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1	
	TOT %	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1	
1<2	PCP	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1	
	NO PCP	.0	.0	.0	.0	.3	.0	.0	.0	.0	.0	.3	
	TOT %	.0	.0	.0	.0	.4	.0	.0	.0	.0	.0	.4	
2<5	PCP	.0	.0	.0	.1	.1	.0	.0	.0	.0	.1	.2	
	NO PCP	.0	.0	.1	1.2	1.6	.3	.0	.0	.0	.2	3.4	
	TOT %	.0	.0	.1	1.3	1.6	.3	.0	.0	.0	.3	3.6	
5<10	PCP	.0	.0	.0	.2	.3	.0	.0	.0	.0	.0	.5	
	NO PCP	.1	.2	.4	7.8	15.6	3.2	.2	.0	.0	1.0	28.5	
	TOT %	.1	.2	.4	8.0	15.9	3.2	.2	.0	.0	1.0	29.0	
10+	PCP	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1	
	NO PCP	.0	.1	1.0	22.5	35.2	5.8	.7	.1	.0	1.3	66.7	
	TOT %	.0	.1	1.0	22.5	35.3	5.8	.7	.1	.0	1.3	66.8	
TOT OBS													1336
TOT PCT		.1	.4	1.5	31.8	53.3	9.4	.9	.1	.0	2.5	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.1	
	11-21	.0	.0	.0	.0	.0	.0	.0	.3	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.1	.0	.0	.0	.3	.0	.0	.1	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1	
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.3	.0	.0	.0	.0	.0	.3	
	11-21	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.4	.0	.0	.0	.0	.0	.4	
2<5	0-3	.0	.0	.1	.1	.1	.1	.0	.0	.0	.3	.6	
	4-10	.0	.0	.0	.7	.9	.4	.1	.0	.0	.0	2.1	
	11-21	.0	.0	.0	.3	.7	.2	.1	.0	.0	.0	1.3	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.1	1.1	1.7	.7	.2	.0	.0	.3	4.0	
5<10	0-3	.1	.1	.1	.6	1.4	.5	.1	.0	.0	.8	3.7	
	4-10	.0	.2	.2	5.5	8.4	1.8	.1	.0	.0	.0	16.3	
	11-21	.0	.0	.0	1.4	4.8	.9	.0	.0	.0	.0	7.1	
	22+	.0	.0	.0	.0	.3	.1	.0	.0	.0	.0	.3	
	TOT %	.1	.3	.4	7.5	14.9	3.3	.2	.0	.0	.8	27.3	
10+	0-3	.0	.0	.0	1.0	3.5	.5	.0	.1	.0	1.3	6.4	
	4-10	.0	.1	.8	15.1	20.3	3.8	.5	.1	.0	.0	40.7	
	11-21	.0	.0	.2	6.3	11.8	2.3	.2	.0	.0	.0	20.8	
	22+	.0	.0	.0	.0	.2	.1	.0	.0	.0	.0	.3	
	TOT %	.0	.1	1.1	22.4	35.8	6.6	.7	.1	.0	1.3	68.1	
TOT OBS													1556
TOT PCT		.1	.4	1.5	31.1	52.8	10.6	1.1	.1	.0	2.4	100.0	

PERIOD: (PRIMARY) 1931-1977
(OVER-ALL) 1869-1977

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AREA 0033 PUNTA NEGRA
6.45 81.1W

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NM >4/8) AND
OCCURRENCE OF NM <5/8 BY HOUR

HOURL (GMT)	070 149	150 299	300 599	600 999	1000 1999	2000 3999	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NM <5/8 ANY HGT	TOTAL OBS
00003	.0	.7	2.3	10.1	14.4	6.4	1.3	.3	.7	2.3	38.6	61.4	298
06009	.9	.0	2.1	8.6	18.0	12.4	3.0	.4	.9	3.4	49.8	50.2	233
12015	.4	1.1	3.5	16.0	19.5	14.2	6.0	.0	1.1	3.2	64.9	35.1	282
18021	.4	2.0	2.0	8.7	13.0	11.1	3.6	.8	.0	3.2	44.7	55.3	253
TOT	4	10	27	117	173	116	37	4	7	32	527	539	1066
PCT	.4	.9	2.5	11.0	16.2	10.9	3.5	.4	.7	3.0	49.4	50.6	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOURL (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.0	.0	.0	2.9	24.1	73.0	411
06009	.2	.0	.0	3.9	26.0	69.8	407
12015	.3	.0	1.0	5.2	32.4	61.1	383
18021	.0	.3	.5	3.9	28.7	66.7	387
TOT	2	1	6	63	440	1076	1588
PCT	.1	.1	.4	4.0	27.7	67.8	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR
CEILING HGT (FEET, NM >4/8), BY HOUR

HOURL (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND5+	NM <5/8 AND 5+	TOTAL OBS
00003	.0	3.1	15.0	26.1	58.9	287
06009	.9	3.6	13.9	39.0	47.1	223
12015	.4	5.1	26.4	41.2	32.5	277
18021	.4	4.8	15.7	31.5	52.8	248
TOT	4	43	186	354	495	1035
PCT	.4	4.2	18.0	34.2	47.8	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
85/89	.0	.0	.0	.0	.0	.1	.1	.0	2	.2
80/84	.0	.0	.0	.0	.1	.0	.2	.0	3	.3
75/79	.0	.0	.1	.0	.4	1.0	.5	.2	23	2.1
70/74	.0	.0	.0	.2	.7	5.2	6.0	1.7	151	13.8
65/69	.0	.0	.0	.2	.5	5.6	28.8	21.8	620	56.8
60/64	.0	.0	.0	.0	.0	.8	7.8	18.3	290	26.6
55/59	.0	.0	.0	.0	.0	.0	.0	.2	2	.2
TOTAL	0	0	1	4	18	139	468	461	1091	100.0
PCT	.0	.0	.1	.4	1.6	12.7	42.9	42.3		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
85/89	.0	.0	.0	.0	.1	.1	.0	.0	.0	.0
80/84	.0	.0	.0	.1	.1	.0	.0	.0	.0	.1
75/79	.0	.0	.0	.9	.8	.4	.0	.0	.0	.0
70/74	.0	.0	.3	5.0	7.1	1.2	.1	.0	.0	.1
65/69	.1	.1	.6	18.3	30.7	5.3	.4	.0	.0	1.3
60/64	.0	.2	.2	8.2	13.9	2.3	.2	.0	.0	1.6
55/59	.0	.0	.0	.1	.1	.0	.0	.0	.0	.0
TOTAL	.1	.3	1.1	32.6	52.9	9.3	.6	.0	.0	3.0

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOURL (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	83	73	72	66	62	61	58	66.6	519
06009	82	73	70	65	61	60	55	65.4	570
12015	86	79	72	66	61	60	56	68.3	488
18021	88	82	78	69	64	62	60	70.1	572
TOT	88	81	74	67	62	60	55	67.1	2149

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOURL (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	.3	.3	11.4	43.8	44.2	87	308
06009	.0	.0	.0	7.2	33.1	59.7	90	278
12015	.0	.7	1.0	6.6	39.8	52.0	89	304
18021	.0	.7	5.2	26.2	49.7	18.2	82	286
TOT	0	5	19	150	490	512	87	1176

NOVEMBER

PERIOD: (PRIMARY) 1931-1977
(OVER-ALL) 1869-1977

TABLE 17

AREA 0033 PUNTA NEGUA
6.4S 81.1W

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	53 56	57 60	61 64	65 68	69 72	73 76	77 80	81 84	85 88	TOT	W FOG	WU FOG
20/22	.0	.0	.0	.0	.0	.1	.0	.0	.0	1	.0	.1
14/16	.0	.0	.0	.1	.0	.0	.1	.1	.0	3	.0	.2
11/13	.0	.0	.0	.2	.1	.5	.4	.1	.1	16	.0	1.3
9/10	.0	.0	.0	.1	.2	.7	.4	.0	.0	18	.0	1.4
7/8	.0	.0	.0	.8	1.1	.7	.2	.0	.1	37	.1	2.8
6	.0	.0	.2	.7	1.2	.6	.0	.0	.0	34	.0	2.7
5	.0	.0	.5	1.5	1.9	.3	.0	.0	.0	53	.4	3.8
4	.0	.0	.9	2.7	1.7	.6	.0	.1	.1	77	.2	5.9
3	.0	.0	1.9	4.4	2.1	.4	.1	.1	.0	114	.2	8.8
2	.0	.2	5.0	5.8	1.9	.2	.0	.1	.0	167	.2	13.0
1	.0	.3	4.9	6.3	1.8	.2	.0	.0	.0	197	.6	14.9
0	.0	.6	5.9	6.0	2.4	.2	.0	.1	.0	220	.9	16.4
-1	.0	.2	2.7	3.9	1.8	.0	.0	.0	.0	109	.4	8.2
-2	.0	.3	1.8	3.6	1.1	.0	.1	.2	.0	90	.1	7.0
-3	.0	.1	.9	2.0	.5	.1	.0	.0	.0	44	.2	3.3
-4	.1	.1	.9	1.5	.4	.1	.0	.0	.0	38	.0	3.0
-5	.0	.0	.4	.8	.2	.0	.0	.0	.0	18	.0	1.4
-6	.0	.0	.5	.3	.3	.0	.0	.0	.0	14	.0	1.1
-7/-8	.0	.0	.2	.4	.2	.0	.0	.0	.0	11	.1	.8
-9/-10	.0	.0	.2	.2	.0	.1	.0	.0	.0	7	.1	.5
-11/-13	.0	.0	.2	.1	.0	.0	.0	.0	.0	3	.0	.2
-14/-16	.0	.0	.1	.0	.0	.0	.0	.0	.0	1	.0	.1
TOTAL	1	22	345	242	58	16	8	3		1272	41	1231
PCT	.1	1.7	27.1	45.4	19.0	4.6	1.3	.6	.2	100.0	3.2	96.8

PERIOD: (OVER-ALL) 1963-1977

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.2
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-50	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.2

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0	.5	2.5	.0	.0	.0	.0	3.1
1-2	.0	.3	.0	.0	.0	.0	.3	.7	12.0	2.4	.0	.0	.0	15.1
3-4	.0	.0	.3	.0	.0	.0	.3	.0	5.7	6.2	.0	.0	.0	12.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	1.0	1.8	.0	.0	.0	2.9
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.2
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-50	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.3	.3	.0	.0	.0	.6	1.3	21.3	10.7	.0	.0	.0	33.2

PERIOD: (OVER-ALL) 1963-1977

NOVEMBER

AREA 0033 PUNTA NEGRA
6.45 81.1W

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	1.0	2.2	4.4	.0	.0	.0	4.2	.4	.4	.0	.0	.0	.0	.8
1-2	2.0	14.4	4.9	.0	.0	.0	21.2	.4	2.0	.2	.0	.0	.0	2.6
3-4	.4	8.9	11.4	.2	.0	.0	20.8	.2	1.7	2.1	.0	.0	.0	4.0
5-6	.0	1.5	4.3	.0	.0	.0	5.7	.0	.2	.1	.0	.0	.0	.3
7	.0	.2	1.6	.0	.0	.0	1.8	.0	.0	.4	.2	.0	.0	.5
8-9	.0	.0	.2	.0	.0	.0	.2	.0	.0	.2	.0	.0	.0	.2
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	3.9	27.1	22.7	.2	.0	.0	53.9	1.0	4.4	3.0	.2	.0	.0	8.4

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.2	.4	.0	.0	.0	.0	.5	.2	.0	.0	.0	.0	.0	.2	.0
3-4	.0	.3	.2	.0	.0	.0	.5	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.2	.7	.2	.0	.0	.0	1.0	.2	.0	.0	.0	.0	.0	.2	97.6

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT DBS
<1	5.9	5.9	.4	.0	.0	.0	12.1	
1-2	4.1	28.4	7.3	.0	.0	.0	39.8	
3-4	.3	10.2	19.7	.2	.0	.0	36.6	
5-6	.0	2.7	6.0	.0	.0	.0	8.7	
7	.0	.2	2.1	.2	.0	.0	2.5	
8-9	.0	.0	.4	.0	.0	.0	.4	
10-11	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	10.5	53.3	35.9	.4	.0	.0	100.0	563

PERIOD: (OVER-ALL) 1948-1977

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	2.5	15.6	22.5	6.1	1.9	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	468	3
6-7	.0	2.0	9.9	8.3	2.1	.5	.0	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	210	4
8-9	.0	1.0	3.3	5.4	1.6	.5	.4	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	113	5
10-11	.0	.5	1.3	1.3	.9	.5	.8	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	49	6
12-13	.0	.0	.7	.4	.5	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	18	5
>13	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2	7
INDET	2.5	1.5	2.1	1.5	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	71	2
TOTAL	46	188	362	211	67	23	11	2	1	0	0	0	0	0	0	0	0	0	0	911	4
PCT	5.0	20.6	39.7	23.2	7.4	2.5	1.2	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	

PERIOD: (PRIMARY) 1930-1977
(OVER-ALL) 1873-1977

DECEMBER

AREA 0033 PUNTA NEGRA
6.35 81.2W

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA						
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST SIG WEA
N	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	7.5	.0	.0	.0 92.5
NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	12.5	12.5	.0	.0	.0 75.0
E	.0	.0	.0	.0	.0	.0	.0	.0	4.0	3.0	8.1	.0	.0	.0 84.8
SE	.3	.3	.4	.0	.0	.0	.0	.9	.0	.4	1.6	.4	2.8	.3 93.6
S	.2	.0	.2	.0	.0	.0	.0	.4	.0	.1	1.8	.3	3.7	.3 93.4
SW	.0	.0	.3	.0	.0	.0	.0	.3	1.0	.0	1.3	.0	1.5	.0 95.9
W	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	16.0	.0 84.0
NW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0 100.0
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0 .0
CALM	2.1	.0	.0	.0	.0	.0	.0	2.1	.0	.0	16.7	.0	10.4	.0 70.8
TOT PCT	.3													
TOT OBS: 1164		.1	.3	.0	.0	.0	.0	.6	.2	.3	2.5	.3	3.4	.3 92.5

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA						
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST SIG WEA
00003	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	.7	.3	2.9	.7 95.1
06009	.7	.4	.0	.0	.0	.0	.0	1.1	.0	.4	3.2	.4	3.2	.0 91.8
12015	.7	.0	1.0	.0	.0	.0	.0	1.6	.3	.0	5.2	.3	3.9	.3 88.2
18021	.0	.0	.0	.0	.0	.0	.0	.0	.3	.3	2.4	.0	4.4	.0 92.6
TOT PCT	.3													
TOT OBS: 1188		.1	.3	.0	.0	.0	.0	.7	.2	.3	2.9	.3	3.6	.3 91.9

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	0-3	WIND SPEED (KNOTS)						48+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)						
		4-10	11-21	22-33	34-47	00	03					06	09	12	15	18	21	
N	.1	.4	.2	.1	.0	.0	.0	.8	9.6	.4	1.4	1.0	.0	2.2	.8	.4	.3	
NE	.1	.2	*	.0	.0	.0	.0	.3	5.2	.0	.0	.5	.3	.2	.0	.5	.0	
E	.4	2.1	.3	.0	.0	.0	.0	2.9	7.2	.4	2.8	2.2	3.7	4.8	4.5	4.4	.7	
SE	3.2	27.7	7.6	.4	.0	.0	.0	33.9	8.4	25.1	52.8	29.2	44.4	35.8	48.8	36.7	32.3	
S	4.2	31.0	11.1	.6	.0	.0	.0	47.0	8.7	56.1	29.2	52.1	35.4	39.2	39.8	46.2	48.6	
SW	1.1	8.7	2.3	*	.0	.0	.0	9.1	8.5	14.3	3.3	8.6	9.4	5.2	5.3	8.4	12.4	
W	.6	.4	.1	.0	.0	.0	.0	1.1	4.4	.7	.0	1.0	2.4	1.6	.0	.8	1.4	
NW	*	.4	*	*	.0	.0	.0	.5	7.7	.6	.5	.3	1.0	.7	.8	.0	.7	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	4.5							4.5	.0	2.5	.0	5.0	3.4	10.4	.0	2.6	3.5	
TOT OBS	288	1276	440	24	0	0	0	2028		8.1	407	53	377	147	383	61	457	143
TOT PCT	14.2	62.9	21.7	1.2	.0	.0	.0		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)			
	0-6	7-16	17-27	28-40	41+						00	06	12	18
N	.4	.4	.1	.0	.0		.8	9.6	.5	.7	2.0	.4		
NE	.2	.1	.0	.0	.0		.3	5.2	.0	.5	.2	.4		
E	1.4	1.6	.0	.0	.0		2.9	7.2	.7	2.6	4.7	3.5		
SE	12.9	19.7	1.0	.1	.0		33.9	8.4	28.3	33.5	37.6	35.7		
S	17.3	27.1	2.3	.1	.0		47.0	8.7	56.2	47.4	39.3	46.8		
SW	3.5	4.9	.7	.0	.0		9.1	8.5	13.0	8.8	5.2	9.3		
W	.8	.2	.0	.0	.0		1.1	4.4	.6	1.4	1.4	.9		
NW	.2	.3	.0	.0	.0		.5	7.7	.6	.5	.7	.2		
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0		
CALM	4.5						4.5	.0	2.2	4.6	9.0	2.8		
TOT OBS	835	1103	84	6	0	2028		8.1	460	524	444	600		
TOT PCT	41.2	54.4	4.1	.3	.0		100.0		100.0	100.0	100.0	100.0		

PERIOD: (PRIMARY) 1930-1977
(OVER-ALL) 1873-1977

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AREA 0033 PUNTA NEGRA
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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)				48+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47					
0000Z	2.2	7.6	61.5	26.7	2.0	.0	.0	.0	8.9	100.0	460
0600Z	4.6	10.9	63.5	20.0	1.0	.0	.0	.0	7.9	100.0	524
1200Z	9.0	12.2	58.6	18.7	1.6	.0	.0	.0	7.4	100.0	444
1800Z	2.8	8.5	66.7	21.5	.5	.0	.0	.0	8.2	100.0	600
TOT	91	197	1276	440	24	.0	.0	.0	8.1		2028
PCT	4.5	9.7	62.9	21.7	1.2	.0	.0	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OVER	TOTAL OBS	MEAN CLOUD COVER
N	.3	.0	.2	.2		4.0
NE	.1	.0	*	*		2.7
E	.5	.2	.7	.2		4.6
SE	9.1	6.0	8.6	6.2		4.4
S	18.4	10.5	13.7	11.4		4.2
SW	2.9	.9	2.6	1.7		4.4
W	.0	.1	.3	.2		6.5
NW	.2	.2	*	.0		3.0
VAR	.0	.0	.0	.0		.0
CALM	1.6	.3	1.1	1.1		4.3
TOT OBS	288	160	238	184	870	4.3
TOT PCT	33.1	18.4	27.4	21.1	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NM >4/8)
AND OCCURRENCE OF NM <5/8 BY WIND DIRECTION

	000 149	150 299	300 599	600 999	1000 1999	2000 3999	3500 6999	5000 7999	6500 7999	8000+ ANY HGT	NH <5/8 TOTAL OBS
N	.0	.0	.0	.0	.1	.1	.0	.0	.0	.0	.5
NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1
E	.0	.0	.0	.4	.3	.0	.0	.0	.0	.0	.9
SE	.3	.1	.3	2.1	4.4	2.2	.4	.1	.6	.1	19.3
S	.2	.0	.9	4.0	8.3	2.4	1.1	.3	.6	.3	35.8
SW	.2	.0	.0	.3	.9	.6	*	*	*	.1	6.0
W	.1	.0	.0	.1	.1	.1	.0	.0	.0	.0	.2
NW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.5
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.1	.0	.1	.0	1.0	.5	.0	.0	.0	.1	2.5
TOT OBS	8	1	12	60	132	50	14	4	11	5	573
TOT PCT	.9	.1	1.4	6.9	15.2	5.7	1.6	.5	1.3	.6	65.9

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE
OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)							
	>10	>5	>2	>1	>1/2	>1/4	>50YD	>0
>6500	1.4	1.8	1.8	1.9	1.9	1.9	1.9	1.9
>5000	1.7	2.3	2.3	2.4	2.4	2.4	2.4	2.4
>3500	2.8	4.0	4.0	4.1	4.1	4.1	4.1	4.1
>2000	7.1	9.5	9.6	9.7	9.7	9.7	9.7	9.7
>1000	19.0	24.3	24.6	24.7	24.7	24.7	24.7	24.7
>600	23.1	31.0	31.6	31.8	31.8	31.8	31.8	31.8
>300	23.8	32.4	33.1	33.2	33.2	33.2	33.2	33.2
>150	24.0	32.5	33.2	33.3	33.3	33.3	33.3	33.3
>0	24.2	32.9	33.8	33.9	33.9	34.1	34.2	34.2
TOTAL	214	291	299	300	300	302	303	303

TOTAL NUMBER OF OBS: 885

PCT FREQ NH <5/8: 65.6

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	OBSCD	TOTAL OBS
24.3	12.7	11.9	9.0	7.3	5.2	6.7	7.9	14.5	.4	942

PERIOD: (PRIMARY) 1930-1977
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AREA 0033 PUNTA NEGRA
0.35 81.2W

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VISBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.3	.0	.1	.0	.0	.0	.1	.4	.4
	TOT %	.0	.0	.0	.3	.0	.1	.0	.0	.0	.1	.4	.4
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.0	.2	*	.0	.0	.0	.0	.3	.3
	TOT %	.0	.0	.0	.0	.2	*	.0	.0	.0	.0	.3	.3
1<2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	*	*	.0	.0	.0	.0	.1	.2	.2
	TOT %	.0	.0	.0	*	*	.0	.0	.0	.0	.1	.2	.2
2<5	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.4	.7	.0	.0	.0	.0	.7	1.8	1.8
	TOT %	.0	.0	.0	.4	.7	.0	.0	.0	.0	.7	1.8	1.8
5<10	PCP	.0	.0	.0	.2	.1	.0	.0	.0	.0	.1	.3	.3
	NO PCP	.4	*	.9	6.6	11.5	1.5	.1	.2	.0	1.4	22.7	22.7
	TOT %	.4	*	.9	6.8	11.6	1.5	.1	.2	.0	1.5	23.1	23.1
10+	PCP	.0	.0	.0	.1	.2	*	.0	.0	.0	.0	.3	.3
	NO PCP	.4	.2	1.3	22.9	39.8	6.8	.5	.3	.0	1.8	73.9	73.9
	TOT %	.4	.2	1.3	22.9	39.9	6.9	.5	.3	.0	1.8	74.2	74.2
TOT OBS													1143
TOT PCT		.9	.2	2.2	30.5	52.5	8.5	.5	.5	.0	4.2	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED
WITH VARYING VALUES OF VISIBILITY

VISBY (NM)	SPO KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.1	.1	.0	.2	.1	.0	.0	.1	.5	.5
	4-10	.0	.0	.0	.1	*	.1	.0	.0	.0	.0	.2	.2
	11-21	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.1	.1
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.1	.3	*	.2	.1	.0	.0	.1	.8	.8
1/2<1	0-3	.0	.0	.0	*	.2	.0	.0	.0	.0	.0	.2	.2
	4-10	.0	.0	.0	.0	.1	*	.0	.0	.0	.0	.1	.1
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	*	.2	*	.0	.0	.0	.0	.3	.3
1<2	0-3	.0	.0	.0	*	*	.0	.0	.0	.0	.1	.2	.2
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	*	*	.0	.0	.0	.0	.1	.2	.2
2<5	0-3	.0	.0	.0	.2	.1	.0	.0	.0	.0	.8	1.1	1.1
	4-10	*	.0	.0	.2	.7	.0	.0	*	.0	.0	1.0	1.0
	11-21	.0	.0	.0	.1	.2	.0	.0	.0	.0	.0	.2	.2
	22+	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1	.1
	TOT %	*	.0	.0	.5	1.0	.0	.0	*	.0	.8	2.4	2.4
5<10	0-3	.1	.0	.1	1.0	1.1	.2	.2	*	.0	1.6	4.3	4.3
	4-10	.2	*	.4	3.9	7.3	.9	.0	.2	.0	.0	12.9	12.9
	11-21	.1	.0	.3	1.5	2.6	.5	.0	*	.0	.0	5.0	5.0
	22+	.0	.0	.0	*	.2	.0	.0	.0	.0	.0	.2	.2
	TOT %	.4	*	.8	6.5	11.2	1.6	.2	.2	.0	1.6	22.5	22.5
10+	0-3	.1	*	.1	1.2	3.8	.8	.3	*	.0	2.1	8.4	8.4
	4-10	.2	.1	.9	15.6	24.4	4.7	.2	.2	.0	.0	46.3	46.3
	11-21	.2	*	.1	5.2	10.9	2.0	.1	.0	.0	.0	18.5	18.5
	22+	.0	.0	.0	.1	.6	.0	.0	.0	.0	.0	.7	.7
	TOT %	.5	.1	1.1	22.1	39.7	7.5	.6	.3	.0	2.1	74.0	74.0
TOT OBS													1317
TOT PCT		.9	.2	2.0	29.4	52.2	9.3	.9	.6	.0	4.6	100.0	

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PERIOD: (PRIMARY) 1930-1977
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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NM >4/8) AND
OCCURRENCE OF NM <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NM <5/8 ANY HGT	TOTAL OBS
00003	1.2	.0	.8	6.3	10.3	4.4	2.4	1.2	.0	1.2	27.8	72.2	252
06009	1.0	.0	1.0	7.0	14.1	4.5	2.0	.5	2.0	.0	32.2	67.8	199
12015	.8	.4	2.1	11.0	22.4	7.6	1.3	.0	1.3	.4	47.3	52.7	237
18021	.4	.0	1.7	3.4	11.2	5.2	.9	.0	1.7	.9	25.4	74.6	232
TOT	8	1	13	64	133	50	15	4	11	6	305	615	920
PCT	.9	.1	1.4	7.0	14.5	5.4	1.6	.4	1.2	.7	33.2	66.8	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.3	.0	.0	.6	20.0	79.1	340
06009	.9	.9	.0	2.7	27.8	67.7	334
12015	1.2	.6	.3	4.7	23.9	69.3	322
18021	.6	.0	.3	2.3	19.1	77.7	345
TOT	10	5	2	34	304	986	1341
PCT	.7	.4	.1	2.5	22.7	73.5	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR
CEILING HGT (FEET, NM >4/8) BY HOUR

HOUR (GMT)	<150 <500	<600 <1	<1000 <5	1000+ AND 5+	NM <5/8 AND 5+	TOTAL OBS
00003	1.2	2.0	8.6	20.1	71.3	244
06009	1.1	2.1	11.1	24.3	64.6	189
12015	.9	3.5	17.3	32.5	50.2	231
18021	.5	2.3	6.8	20.4	72.9	221
TOT	8	22	97	215	573	885
PCT	.9	2.5	11.0	24.3	64.7	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
85/89	.0	.0	.0	.0	.0	.1	.1	.0	2	.2
80/84	.0	.0	.0	.0	.1	.7	.4	.5	18	1.7
75/79	.0	.0	.0	.0	.4	2.5	2.7	2.2	84	7.8
70/74	.0	.0	.0	.0	.5	4.5	19.0	11.4	379	35.4
65/69	.0	.0	.0	.0	.2	1.4	16.2	29.2	504	47.0
60/64	.0	.0	.0	.0	.0	.1	2.1	5.7	85	7.9
TOTAL	0	0	0	0	12	100	435	525	1072	100.0
PCT	.0	.0	.0	.0	1.1	9.3	40.6	49.0		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
85/89	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0
80/84	.1	.0	.2	.6	.4	.3	.1	.1	.0	.0
75/79	.1	.0	.0	3.1	2.8	.7	.0	.0	.0	.1
70/74	.1	.1	.7	13.5	17.5	2.4	.1	.1	.0	.8
65/69	.4	.0	1.1	16.3	23.0	3.1	.3	.2	.0	2.6
60/64	.1	.0	.2	2.8	3.7	.5	.0	.0	.0	.7
TOTAL	.7	.2	2.2	36.3	48.4	7.1	.5	.3	.0	4.2

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	82	78	75	69	64	62	59	69.3	470
06009	80	75	74	68	63	62	61	68.1	539
12015	86	81	75	68	64	62	61	68.9	450
18021	87	83	80	72	66	64	61	72.3	564
TOT	87	81	77	69	64	62	59	69.7	2023

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-39	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	.0	.4	6.0	40.3	53.4	89	283
06009	.0	.0	.0	2.9	30.9	66.2	91	278
12015	.0	.0	.7	6.1	45.4	47.9	89	280
18021	.0	.0	3.2	22.2	46.6	28.0	84	279
TOT	0	0	12	104	457	547	88	1120

DECEMBER

PERIOD: (PRIMARY) 1930-1977
(OVER-ALL) 1873-1977

AREA 0033 PUNTA NEGRA
6.35 81.2W

TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	57 60	61 64	65 68	69 72	73 76	77 80	81 84	85 88	TOT	W FOG	NO FOG
20/22	.0	.0	.0	.0	.0	.1	.1	.1	2	.0	.2
14/16	.0	.0	.0	.1	.0	.2	.0	.0	3	.0	.3
11/13	.0	.0	.0	.0	.1	.4	.2	.1	8	.0	.7
9/10	.0	.0	.0	.5	.5	.4	.2	.0	16	.0	1.5
7/8	.0	.0	.4	1.1	1.3	.3	.1	.0	34	.0	3.1
6	.0	.0	.6	.8	.6	.5	.1	.0	28	.1	2.5
5	.0	.1	1.3	2.0	1.0	.3	.0	.0	51	.2	4.5
4	.0	.2	1.9	2.0	.7	.5	.0	.0	64	.4	5.5
3	.0	.9	4.3	3.1	1.2	.0	.1	.1	106	.4	9.4
2	.0	2.4	4.9	4.4	1.7	.0	.0	.0	146	.2	13.2
1	.0	1.1	5.3	7.3	2.8	.2	.0	.0	181	.4	16.3
0	.0	1.7	5.4	6.2	2.2	.1	.0	.0	170	.5	15.2
-1	.0	.4	3.9	5.2	.9	.2	.1	.0	116	.3	10.4
-2	.1	.5	2.2	2.3	.4	.2	.0	.0	61	.3	5.3
-3	.0	.0	1.0	1.9	.2	.2	.1	.0	37	.0	3.4
-4	.0	.1	.8	.7	.3	.1	.0	.0	22	.1	1.9
-5	.0	.0	.5	.6	.1	.1	.0	.0	14	.1	1.2
-6	.0	.0	.7	.2	.1	.0	.0	.0	11	.0	1.0
-7/-8	.0	.0	.8	.5	.0	.0	.0	.0	14	.1	1.2
-9/-10	.0	.0	.4	.1	.0	.0	.0	.0	5	.0	.5
TOTAL	1		374	153		10			1089	2.8	97.2
PCT	.1	7.3	34.3	39.6	14.0	3.4	.9	.3	100.0	2.8	97.2

PERIOD: (OVER-ALL) 1963-1977

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.2	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0
1-2	.4	.2	.2	.0	.0	.0	.8	.1	.0	.0	.0	.0	.0	.1
3-4	.0	.0	.2	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.4	.4	.4	.0	.0	.0	1.2	.1	.0	.0	.0	.0	.0	.1

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.3	.0	.0	.0	.0	.3	.5	2.1	.0	.0	.0	.0	2.5
1-2	.2	.5	.6	.0	.0	.0	1.4	.5	11.8	3.6	.0	.0	.0	15.9
3-4	.0	.6	.2	.0	.0	.0	.8	.0	6.3	2.9	.1	.0	.0	9.3
5-6	.0	.2	.0	.0	.0	.0	.2	.1	1.7	1.2	.0	.0	.0	3.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.2
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.2
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.2	1.7	.8	.0	.0	.0	2.7	1.1	21.9	6.2	.1	.0	.0	31.3

PERIOD: (OVER-ALL) 1963-1977

DECEMBER

AREA 0033 PUNTA NEGRA
6.35 81.2W

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	2.6	32.1	16.4	1.6	.0	.0	52.7	.6	4.3	2.2	.0	.0	.0	7.3

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.2	.2	.2	.0	.0	.0	.5	.0	.4	.1	.0	.0	.0	.5	96.3

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT DBS
<1	5.3	6.4	.2	.0	.0	.0	12.0	
1-2	3.2	32.1	10.7	.0	.0	.0	45.9	
3-4	1.1	17.7	10.5	1.3	.0	.0	30.6	
5-6	.4	3.8	4.1	.0	.0	.0	8.3	
7	.0	.4	2.1	.4	.0	.0	3.0	
8-9	.0	.0	.2	.0	.0	.0	.2	
10-11	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	10.0	60.5	27.8	1.7	.0	.0	100.0	468

PERIOD: (OVER-ALL) 1949-1977

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	2.1	15.5	23.2	5.4	.4	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	357	3
6-7	.0	1.8	10.7	13.3	3.3	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	224	4
8-9	.0	.0	2.5	3.9	1.3	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	85	4
10-11	.0	.8	1.2	1.1	1.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	35	5
12-13	.0	.0	.5	.5	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	9	4
>13	.0	.0	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2	7
INDET	3.3	1.2	.5	.4	.5	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	47	2
TOTAL	43	165	293	187	54	11	2	3	2	0	0	0	0	0	0	0	0	0	0	760	4
PCT	5.7	21.7	38.6	24.6	7.1	1.4	.3	.4	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	

PERIOD: (PRIMARY) 1928-1978
(OVER-ALL) 1868-1978

ANNUAL

AREA 0033 PUNTA NEGRA
6.45 81.1W

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

PRECIPITATION TYPE										OTHER WEATHER PHENOMENA						
WNO DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA	
N	2.0	.0	.0	.0	.0	.0	.0	2.0	1.8	1.0	3.2	.5	.9	.0	90.6	
NE	.0	.0	.0	.0	.0	.0	.0	.0	.8	1.0	3.5	.0	2.1	.0	92.6	
E	.5	.4	2.5	.0	.0	.0	.0	3.4	1.6	.5	3.6	.1	3.1	.0	87.8	
SE	.2	.3	1.7	.0	.0	.0	*	2.2	.8	.1	3.4	.1	2.9	.1	90.5	
S	.3	.2	1.1	.0	.0	.0	*	1.6	.5	.2	2.4	.1	4.3	*	90.9	
SW	.3	.2	1.0	.0	.0	.0	.1	1.6	.5	.4	1.7	.2	2.9	.1	92.6	
W	.0	1.0	2.0	.0	.0	.0	.0	3.0	.0	2.3	.0	.0	2.5	.0	92.1	
NW	2.0	.0	.0	.0	.0	.0	.0	2.0	.0	1.0	.0	.0	8.3	.0	80.5	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.6	.3	.6	.0	.0	.0	.0	1.5	1.0	.1	10.0	.4	9.2	.0	77.8	
TOT PCT	.3	.3	1.3	.0	.0	.0	*	1.9	.7	.2	2.9	.1	3.7	.1	90.5	
TOT OBS: 15908																

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
00003	.2	.2	.7	.0	.0	.0	*	1.2	.3	.2	1.9	.1	3.6	.1	92.7
06009	.4	.4	1.4	.0	.0	.0	*	2.2	.6	.5	2.5	.1	2.8	.1	91.2
12015	.6	.3	2.3	.0	.0	.0	.0	3.1	1.1	.1	4.8	.2	4.0	*	86.6
18021	.1	.2	.8	.0	.0	.0	*	1.1	.6	.1	2.7	.1	4.4	.0	90.9
TOT PCT	.3	.3	1.3	.0	.0	.0	*	1.9	.7	.2	3.0	.1	3.7	.1	90.4
TOT OBS: 16206															

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							48+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)						
	0-3	4-10	11-21	22-33	34-47	00	03					06	09	12	15	18	21	
N	.2	.2	.1	*	.0	.0	.5	5.0	.2	.1	.4	1.2	.8	.1	.5	.4		
NE	.1	.3	*	*	.0	.0	.5	6.0	.2	.7	.5	.7	.7	.1	.6	.4		
E	.4	2.1	.6	*	.0	.0	3.1	7.9	1.3	3.2	2.3	4.1	4.5	4.7	4.2	1.3		
SE	2.3	23.3	10.7	.3	*	.0	36.6	9.1	29.4	46.8	32.8	38.1	42.7	52.0	40.1	30.0		
S	3.5	29.8	14.0	.4	*	.0	46.8	9.1	55.0	38.6	49.3	38.8	40.1	34.0	45.6	50.9		
SW	1.0	4.7	2.5	.1	.0	.0	8.3	9.0	11.0	8.4	9.3	9.8	5.2	6.6	6.1	13.4		
W	.2	.5	.2	*	.0	.0	.8	7.3	1.1	.4	.9	1.0	.7	.9	.5	1.2		
NW	.1	.2	*	*	.0	.0	.3	6.2	.4	.3	.3	.4	.4	.1	.3	.5		
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
CALM	3.1						3.1	.0	1.4	1.6	4.2	5.9	4.9	1.4	2.2	1.9		
TOT OBS							25101		8.8		5365	433	4948	1684	5024	513	5666	1468
TOT PCT	11.0	60.1	28.0	.8	*	.0		100.0			100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	0-6	WIND SPEED (KNOTS)				41+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)			
		7-16	17-27	28-40	00 03					06 09	12 15	18 21	
N	.3	.1	*	.0	.0	.5	5.0	.2	.6	.7	.5		
NE	.3	.1	*	.0	.0	.5	6.0	.2	.6	.6	.6		
E	1.4	1.6	.1	.0	.0	3.1	7.9	1.5	2.8	4.6	3.6		
SE	11.2	23.6	1.7	*	.0	36.6	9.1	30.7	34.2	43.6	38.1		
S	14.9	29.0	2.8	*	.0	46.8	9.1	53.8	46.6	39.7	46.6		
SW	3.0	4.6	.7	*	.0	8.3	9.0	10.8	9.4	5.3	7.6		
W	.5	.3	*	.0	.0	.8	7.3	1.0	.9	.7	.7		
NW	.2	.1	*	.0	.0	.3	6.2	.4	.3	.4	.3		
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
CALM	3.1					3.1	.0	1.4	4.6	4.5	2.1		
TOT OBS						25101	8.8	5798	6632	5537	7134		
TOT PCT	35.0	59.5	5.3	.1	.0		100.0	100.0	100.0	100.0	100.0		

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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	WIND SPEED (KNOTS)						48*	MEAN	PCT FREQ	TOTAL OBS
		1-3	4-10	11-21	22-33	34-47					
0000	1.4	6.0	58.3	33.4	1.0	*	*	.0	9.5	100.0	5798
0600	4.6	8.6	60.3	25.6	.9	*	*	.0	8.4	100.0	5532
1200	4.5	9.3	59.9	25.5	.7	.0	.0	.0	8.3	100.0	5537
1800	2.1	7.6	61.6	27.9	.7	.0	.0	.0	8.8	100.0	7134
TOT									8.8		25101
PCT	3.1	7.9	60.1	28.0	.8	*	.0		100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	.1	*	.1	.1		4.7
NE	.1	*	.1	.1		4.3
E	.4	.4	.7	.8		5.8
SE	7.6	4.9	9.8	14.2		5.5
S	12.0	7.0	12.6	18.2		5.0
SW	2.1	1.0	1.8	1.7		4.4
W	.1	.1	.2	.1		5.4
NW	.1	*	.1	.1		4.7
VAR	.0	.0	.0	.0		.0
CALM	.7	.4	.8	.9		5.2
TOT OBS					11831	
TOT PCT	23.8	14.0	26.1	36.1	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8)
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+ ANY HGT	NH <5/8 TOTAL OBS
N	.0	.0	.0	*	.1	*	*	.0	.0	*	.2
NE	*	.0	*	*	*	*	*	*	*	*	.2
E	.1	.3	.3	.3	.4	.2	.1	*	*	*	1.2
SE	.1	.3	1.0	4.8	7.7	3.2	1.1	.3	.4	.6	16.4
S	.3	.2	1.1	9.8	9.8	4.2	1.5	.4	.4	.8	25.8
SW	*	*	.1	.6	.8	.5	.2	.1	*	.1	4.1
W	*	.0	*	.1	.1	.1	*	.0	.0	*	.3
NW	.0	.0	*	*	*	*	.0	*	.0	*	.1
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.1	*	.1	.3	.5	.2	.1	*	*	.1	1.5
TOT OBS	.6	.5	2.4	11.9	19.4	8.4	3.1	.8	.9	1.7	50.4
TOT PCT											100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE
OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)							
	= OR >10	= OR >5	= OR >2	= OR >1	= OR >1/2	= OR >1/4	= OR >50YD	= OR >0
= OR >6500	1.8	2.5	2.6	2.6	2.6	2.6	2.6	2.6
= OR >5000	2.4	3.2	3.4	3.4	3.4	3.4	3.4	3.4
= OR >3500	4.7	6.2	6.4	6.5	6.5	6.5	6.5	6.5
= OR >2000	10.8	14.3	14.7	14.8	14.8	14.8	14.9	14.9
= OR >1000	25.1	33.2	34.1	34.2	34.3	34.3	34.3	34.3
= OR >600	32.6	44.5	45.9	46.0	46.1	46.1	46.2	46.2
= OR >300	33.7	46.7	48.3	48.4	48.4	48.5	48.6	48.6
= OR >150	33.9	47.0	48.7	48.9	48.9	49.0	49.1	49.1
= OR >0	34.0	47.2	49.1	49.2	49.3	49.5	49.6	49.6

TOTAL NUMBER OF OBS: 11982

PCT FREQ NH <5/8: 50.4

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

	0	1	2	3	4	5	6	7	8 OBSCD	TOTAL OBS
	16.7	9.6	9.8	7.4	6.1	4.6	6.9	8.7	29.9	12918

PERIOD: (PRIMARY) 1928-1978
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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	*	*	.0	.0	.0	.0	.0	*	
	NO PCP	*	*	*	.1	.2	*	.0	.0	.0	.1	.4	
	TOT %	*	*	*	.1	.2	*	.0	.0	.0	.1	.4	
1/2<1	PCP	.0	.0	.0	*	*	.0	.0	.0	.0	.0	.1	
	NO PCP	.0	.0	.0	.1	.1	*	.0	.0	.0	*	.2	
	TOT %	.0	.0	.0	.1	.1	*	.0	.0	.0	*	.3	
1<2	PCP	.0	.0	.0	*	*	.0	*	.0	.0	.0	*	
	NO PCP	.0	.0	.0	.1	.1	*	.0	.0	.0	*	.2	
	TOT %	.0	.0	.0	.1	.2	*	*	.0	.0	*	.3	
2<5	PCP	.0	.0	*	.1	.1	*	.0	.0	.0	*	.3	
	NO PCP	*	*	.1	.9	1.0	.1	*	*	.0	.3	2.4	
	TOT %	*	*	.1	1.1	1.1	.1	*	*	.0	.3	2.7	
5<10	PCP	*	.0	*	.4	.4	.1	*	*	.0	*	1.0	
	NO PCP	.2	.1	.6	8.3	11.5	1.6	.2	.1	.0	.9	23.5	
	TOT %	.2	.1	.7	8.7	11.9	1.6	.2	.1	.0	.9	24.5	
10+	PCP	.0	.0	*	.2	.2	*	.0	.0	.0	*	.4	
	NO PCP	.3	.2	1.8	26.0	35.9	5.2	.4	.2	.0	1.4	71.4	
	TOT %	.3	.2	1.9	26.2	36.1	5.2	.4	.2	.0	1.4	71.8	
TOT OBS		15696											
TOT PCT		.4	.4	2.6	36.3	49.6	7.1	.6	.3	.0	2.7	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPO KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	*	*	*	.1	*	*	*	.0	.0	.1	.2	
	4-10	.0	*	*	.1	.1	*	.0	.0	.0		.3	
	11-21	.0	.0	*	*	*	*	.0	.0	.0		.1	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	TOT %	*	*	*	.2	.2	*	*	.0	.0	.1	.6	
1/2<1	0-3	.0	.0	.0	*	*	.0	.0	.0	.0	*	.1	
	4-10	.0	.0	.0	.1	.1	*	.0	.0	.0		.1	
	11-21	.0	.0	.0	*	*	*	.0	.0	.0		.1	
	22+	.0	.0	.0	.0	*	.0	.0	.0	.0		*	
	TOT %	.0	.0	.0	.1	.1	*	.0	.0	.0	*	.3	
1<2	0-3	.0	.0	.0	*	*	.0	.0	.0	.0	*	.1	
	4-10	.0	.0	.0	.1	.1	*	*	.0	.0		.2	
	11-21	.0	.0	.0	*	*	*	.0	.0	.0		.1	
	22+	.0	.0	.0	*	*	.0	.0	.0	.0		*	
	TOT %	.0	.0	.0	.1	.2	*	*	.0	.0	*	.4	
2<5	0-3	.0	.0	*	.1	.1	*	.0	.0	.0	.3	.6	
	4-10	*	.0	.1	.7	.7	.1	*	*	.0	1.6		
	11-21	.0	*	*	.3	.3	.1	*	.0	.0		.7	
	22+	.0	.0	.0	*	*	.0	.0	.0	.0		*	
	TOT %	*	*	.1	1.1	1.2	.2	*	*	.0	.3	2.8	
5<10	0-3	.1	*	.1	.7	.9	.2	.1	*	.0	.9	3.0	
	4-10	*	.1	.4	4.9	6.4	.9	.1	.1	.0		12.9	
	11-21	*	*	.1	2.4	3.6	.5	*	*	.0		6.8	
	22+	.0	.0	.0	.1	.2	*	.0	.0	.0		.2	
	TOT %	.2	.1	.6	8.1	11.1	1.7	.2	.1	.0	.9	23.0	
10+	0-3	.1	*	.2	1.2	2.5	.5	.1	*	.0	1.7	6.3	
	4-10	.1	.2	1.2	16.0	21.9	3.6	.3	.1	.0		43.5	
	11-21	*	*	.4	8.3	11.9	2.0	.1	*	.0		22.8	
	22+	.0	*	.0	.2	.2	.1	*	.0	.0		.5	
	TOT %	.3	.2	1.8	25.6	36.5	6.1	.5	.2	.0	1.7	73.0	
TOT OBS		18664											
TOT PCT		.4	.4	2.6	35.2	49.3	8.1	.7	.3	.0	3.0	100.0	

PERIOD: (PRIMARY) 1928-1978
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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NM >4/8) AND
OCCURRENCE OF NM <3/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NM <3/8 ANY HGT	TOTAL OBS
00003	.3	.3	1.9	10.6	17.0	6.6	2.6	.8	.6	1.4	42.1	57.9	3271
06009	1.1	.4	2.6	10.5	19.8	8.1	2.7	.7	1.0	2.0	48.9	51.1	2700
12015	.8	.7	3.0	15.6	22.6	9.3	4.2	1.1	1.2	2.0	60.5	39.5	3236
18021	.2	.5	1.9	9.5	16.7	8.6	2.5	.5	.7	1.3	42.5	57.5	3159
TOT PCT	.6	.5	2.3	11.6	19.0	8.2	3.0	.8	.9	1.7	48.5	51.5	12366 100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.3	.1	.3	2.2	21.0	76.1	4657
06009	.7	.3	.5	2.5	24.1	71.9	4893
12015	1.0	.5	.5	4.5	25.8	67.7	4483
18021	.5	.2	.3	2.5	21.9	74.6	4894
TOT PCT	.6	.3	.4	2.9	23.1	72.7	18927 100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR
CEILING HGT (FEET, NM >4/8) BY HOUR

HOUR (GMT)	<150 <5000	<600 <1	<1000 <5	1000+ AND 5+	NM <3/8 AND 5+	TOTAL OBS
00003	.3	2.8	14.8	29.2	56.0	3157
06009	1.1	4.3	16.4	34.7	48.9	2611
12015	.8	4.9	23.8	39.0	37.2	3160
18021	.3	2.9	14.1	30.3	55.6	3054
TOT PCT	.6	3.7	17.4	33.2	49.4	11982 100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
95/99	.0	.0	.0	*	*	.0	.0	.0	*	*
90/94	.0	.0	.0	.0	*	*	*	*	*	*
85/89	.0	.0	.0	*	.1	.2	.1	*	.4	*
80/84	.0	.0	.0	.1	.4	1.5	1.0	.3	3.2	*
75/79	.0	*	*	.1	.4	3.5	6.1	2.9	13.0	*
70/74	.0	.0	.0	.1	.6	3.6	11.3	11.1	26.7	*
65/69	.0	.0	.0	*	.2	2.8	14.8	15.7	33.7	*
60/64	.0	.0	.0	.0	*	.9	9.4	12.0	22.8	*
55/59	.0	.0	.0	.0	.0	*	.1	.5	.7	*
TOT PCT	.0	.0	*	.3	1.8	12.5	42.7	42.6	13821	100.0

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.0	.0	*	*	.0	.0	.0	.0	.0	.0
.0	*	.0	*	*	.0	.0	.0	.0	*
.0	*	*	.2	.1	*	*	.0	.0	*
.1	*	.3	1.3	1.0	.2	.1	*	.0	.1
.1	.1	.6	5.7	5.2	1.0	.1	*	.0	.2
.1	.1	.8	10.2	12.7	1.8	.1	.1	.0	.9
.1	.1	.7	12.1	17.0	2.4	.2	.1	.0	.9
.1	.1	.2	7.7	12.2	1.4	.1	*	.0	.6
.0	.0	.0	.3	.3	*	*	.0	.0	.0
.5	.4	2.7	37.6	48.6	6.8	.6	.2	.0	2.7

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	95	78	75	69	64	62	55	69.1	5848
06009	96	76	73	67	63	61	55	67.6	6752
12015	94	78	75	68	63	61	56	68.4	5650
18021	95	83	79	71	66	64	58	71.8	6977
TOT	96	81	76	69	63	62	55	69.3	25227

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	.2	.7	10.4	46.2	42.5	87	3614
06009	.0	.1	.6	6.2	36.7	56.5	89	3406
12015	.0	.3	.9	7.6	40.4	50.9	88	3678
18021	.0	.8	5.0	25.7	46.8	21.7	83	3651
TOT	0	50	264	1813	6105	6117	87	14349

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TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	53 56	57 60	61 64	65 68	69 72	73 76	77 80	81 84	85 88	89 92	>92	TOT	W FOG	NO FOG
23/25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	*	1	.0	*
20/22	.0	.0	.0	.0	.0	.0	.0	*	*	.0	*	7	.0	*
17/19	.0	.0	.0	.0	*	*	*	*	*	.0	*	14	.0	.1
14/16	.0	.0	.0	*	*	*	.1	.1	*	*	.0	44	.0	.3
11/13	.0	.0	.1	.1	.1	.3	.2	.1	.1	*	*	148	*	1.0
9/10	.0	.0	.1	.1	.4	.4	.3	.2	.1	*	.0	227	*	1.5
7/8	.0	*	.1	.4	.9	.9	.5	.2	.1	.0	.0	455	.1	3.0
6	.0	*	.1	.5	.6	.6	.4	.1	*	.0	.0	349	.1	2.3
5	.0	*	.2	.9	1.1	.8	.5	.2	*	*	.0	548	.1	3.6
4	.0	*	.4	1.8	1.8	.9	.5	.2	*	.0	.0	864	.2	5.6
3	.0	.1	1.2	2.8	2.0	1.2	.6	.1	*	.0	.0	1174	.3	7.7
2	.0	.2	2.8	3.7	3.0	1.5	.9	.2	*	.0	.0	1816	.5	11.8
1	.0	.4	3.9	4.4	3.1	2.1	.7	.1	*	.0	.0	2179	.6	14.3
0	.0	.7	4.2	4.6	3.3	2.5	.9	.2	*	.0	.0	2425	.6	15.8
-1	.0	.3	2.4	2.8	2.2	1.7	.9	.1	.0	.0	.0	1556	.3	10.2
-2	.0	.3	1.8	2.0	1.6	1.2	.8	.1	.0	.0	.0	1141	.2	7.5
-3	.0	.1	.9	1.2	1.0	.8	.5	*	.0	.0	.0	680	.1	4.5
-4	*	.1	.7	.8	.7	.6	.3	*	.0	.0	.0	481	*	3.2
-5	.0	*	.5	.5	.4	.3	.1	*	.0	.0	.0	272	*	1.8
-6	.0	*	.2	.4	.2	.1	*	.0	.0	.0	.0	153	*	1.0
-7/8	.0	*	.2	.4	.3	.1	.1	*	.0	.0	.0	149	*	1.0
-9/10	.0	*	.1	.2	*	*	*	.0	.0	.0	.0	62	*	.4
-11/13	.0	*	.1	*	*	*	*	.0	.0	.0	.0	26	*	.2
-14/16	.0	*	*	*	*	.0	.0	.0	.0	.0	.0	10	.0	.1
-17/19	.0	.0	.0	*	.0	.0	.0	.0	.0	.0	.0	1	.0	*
TOTAL												14782		
PCT	*	2.4	20.1	27.6	22.7	16.3	8.3	2.2	.4	*	*	100.0	3.1	96.9

PERIOD: (OVER-ALL) 1963-1978

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.1	*	.0	.0	.0	.0	.2	*	.0	.0	.0	.0	.0	*
1-2	.1	.1	*	.0	.0	.0	.1	*	.1	*	.0	.0	.0	.2
3-4	.0	*	*	.0	.0	.0	*	*	*	*	.0	.0	.0	.1
5-6	.0	.0	*	.0	.0	.0	*	.0	*	*	.0	.0	.0	*
7	.0	.0	*	.0	.0	.0	*	.0	.0	*	.0	.0	.0	*
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.2	.1	.1	.0	.0	.0	.4	*	.2	.1	.0	.0	.0	.3

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.1	.1	.1	.0	.0	.0	.3	.5	1.9	.2	.0	.0	.0	2.6
1-2	.1	1.0	.3	.0	.0	.0	1.4	.7	12.4	3.8	.0	.0	.0	17.0
3-4	*	.3	.3	.0	.0	.0	.6	.2	6.2	6.5	.1	.0	.0	13.0
5-6	.0	.2	.1	.0	.0	.0	.3	*	1.1	2.9	.1	.0	.0	4.1
7	.0	*	*	.0	.0	*	*	.0	.1	.8	*	.0	.0	.9
8-9	.0	.0	.0	.0	.0	.0	.0	*	*	.1	*	.0	.0	.2
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	*	.0	.0	.0	*
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	*	.0	.0	.0	*
13-16	.0	*	.0	.0	.0	.0	*	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.2	1.7	.8	.0	.0	.0	2.6	1.4	21.7	14.4	.2	.0	.0	37.7

PERIOD: (OVER-ALL) 1963-1978

ANNUAL

AREA 0033 PUNTA NEGRA
6.45 81.1W

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.8	2.4	.1	.0	.0	.0	3.4	.2	.2	.0	.0	.0	.0	.4
1-2	1.3	14.4	4.8	.0	.0	.0	20.4	.2	1.9	.6	.0	.0	.0	2.7
3-4	.2	8.3	8.0	.2	.0	.0	16.8	.1	1.1	1.1	.0	.0	.0	2.4
5-6	.1	1.3	4.7	.2	.0	.0	6.3	.0	.2	.6	.0	.0	.0	.8
7	.0	.3	1.3	.1	.0	.0	1.7	.0	.0	.1	.0	.0	.0	.2
8-9	.0	.1	.2	.0	.0	.0	.4	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.1	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	2.3	26.9	19.2	.5	.0	.0	48.9	.5	3.4	2.4	.1	.0	.0	6.5

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.1	
1-2	.0	.2	.1	.0	.0	.0	.3	.0	.1	.0	.0	.0	.0	.2	
3-4	.0	.1	.1	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.1	.4	.2	.0	.0	.0	.6	.1	.2	.0	.0	.0	.0	.3	97.3

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	4.8	4.8	.4	.0	.0	.0	10.1	
1-2	2.7	30.0	9.5	.0	.0	.0	42.2	
3-4	.6	16.0	15.9	.3	.0	.0	32.8	
5-6	.1	2.8	8.2	.3	.0	.0	11.4	
7	.0	.4	2.3	.2	.0	.0	2.9	
8-9	.0	.1	.4	.0	.0	.0	.5	
10-11	.0	.0	.1	.0	.0	.0	.1	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	8.3	54.1	36.8	.9	.0	.0	100.0	6165

PERIOD: (OVER-ALL) 1950-1977

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PER SEC	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT	
<6	2.5	13.1	19.3	7.0	1.4	.4	.1	*	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	4556	3
6-7	.1	1.6	8.4	9.9	3.9	.8	.5	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2618	5
8-9	.1	.8	3.0	4.4	2.8	1.1	.5	.2	.1	.1	*	*	*	.0	.0	.0	.0	.0	.0	.0	1355	5
10-11	.0	.8	1.3	1.6	1.4	.7	.4	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	658	5
12-13	.0	.0	1.1	.6	.5	.2	.1	.1	.1	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	285	6
>13	.0	.0	.0	.3	.3	.1	.1	*	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	103	7
INDET	2.2	1.8	1.9	1.1	.4	.1	.1	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	795	3
TOTAL																					10368	4
PCT	4.8	18.1	34.9	29.0	10.6	3.5	1.9	.7	.4	.1	*	*	*	.0	.0	.0	.0	.0	.0	.0	100.0	

PERIOD: (PRIMARY) 1928-1978
(OVER-ALL) 1868-1978

TABLE 20

AREA 0033 PUNTA NEGRA
6.4S 81.1W

PERCENT FREQUENCY OF OCCURRENCE OF SEA TEMP (DEG F) BY MONTH

SEA TMP DEG F	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANN	PCT
96+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
95/96	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
93/94	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
91/92	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
89/90	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1	*
87/88	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	4	*
85/86	.0	.1	.4	.7	.3	.0	.0	.0	.0	.1	.0	.0	35	.1
83/84	.3	.5	2.0	1.0	.3	.0	.0	.1	.1	.1	.2	.1	114	.4
81/82	.5	5.4	7.0	3.3	1.3	.5	.2	.1	.3	.1	.5	.3	457	1.7
79/80	2.2	8.2	9.9	5.3	1.8	.6	.5	.1	.2	.2	.1	.3	702	2.6
77/78	6.4	13.2	11.5	5.9	3.0	1.4	.3	.5	.1	.2	.3	1.1	1012	3.7
75/76	9.0	14.7	16.1	9.1	5.9	2.8	1.0	.7	.2	.8	.7	3.0	1493	5.5
73/74	16.9	20.5	13.8	10.4	8.1	6.2	3.6	.7	.7	1.9	2.8	9.3	2159	7.9
71/72	16.6	14.5	11.7	12.3	10.4	9.1	4.6	4.6	1.7	3.3	5.3	13.6	2444	9.0
69/70	17.0	11.4	11.7	12.7	12.6	11.1	9.1	6.2	4.6	5.6	11.0	16.6	2948	10.8
67/68	12.6	5.8	9.0	15.1	16.7	15.4	15.9	10.1	8.0	11.8	17.1	16.3	3473	12.8
65/66	9.3	2.9	4.8	12.2	15.8	21.5	20.4	15.3	14.5	14.6	20.4	15.5	3767	13.8
63/64	5.7	1.1	1.6	8.8	11.5	20.3	23.5	26.0	27.5	24.4	21.1	14.3	4185	15.4
61/62	1.9	.6	.4	1.8	8.9	8.3	13.7	21.2	22.9	21.2	14.3	7.0	2811	10.3
59/60	.6	.2	.1	.7	3.0	2.6	4.0	11.9	14.4	12.5	5.4	2.2	1297	4.8
57/58	.0	.0	.0	.2	.3	.1	.5	2.1	3.3	2.4	.6	.2	220	.8
55/56	.0	.0	.0	.0	.1	.0	.2	.2	.3	.3	.1	.1	43	.2
53/54	.0	.0	.0	.1	.0	.0	.2	.2	.1	.3	.0	.0	19	.1
51/52	.0	.0	.0	.0	.0	.0	.3	.0	.2	.6	.1	.0	28	.1
49/50	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
47/48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
45/46	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
43/44	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
41/42	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
39/40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
37/38	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
35/36	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
33/34	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
31/32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
29/30	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
27/28	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
<27	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
TOTAL	2175	2355	2495	2134	2146	1858	2428	2335	2345	1996	2451	2494	27212	100.0
MEAN	70.7	73.8	73.8	70.8	68.3	67.0	65.5	64.1	63.4	64.1	65.6	67.9	67.9	

TABLE 21

PRESSURE (MB)

AVERAGE BY HOUR (GMT)

MO	0000	0300	0600	0900	1200	1500	1800	2100	MEAN	TOTAL OBS
JAN	1011	1013	1012	1011	1012	1013	1012	1011	1012	1654
FEB	1010	1012	1012	1011	1011	1012	1011	1010	1011	1516
MAR	1010	1011	1011	1011	1011	1012	1011	1010	1011	1839
APR	1011	1012	1012	1012	1012	1012	1012	1010	1011	1580
MAY	1012	1012	1013	1012	1013	1013	1013	1011	1012	1557
JUN	1013	1015	1014	1014	1014	1016	1014	1014	1014	1558
JUL	1013	1014	1014	1013	1014	1015	1014	1012	1014	1677
AUG	1013	1010	1014	1011	1014	1011	1014	1010	1013	1521
SEP	1013	1011	1014	1012	1014	1013	1014	1012	1013	1502
OCT	1013	1015	1014	1012	1014	1014	1014	1011	1014	1383
NOV	1012	1010	1013	1010	1014	1013	1013	1011	1013	1546
DEC	1011	1010	1012	1010	1013	1012	1013	1010	1012	1506
ANN	1012	1012	1013	1012	1013	1013	1013	1011	1012	18839
OBS	4176	393	3428	701	4122	485	4542	592		

PERCENTILES

MO	MIN	1%	5%	25%	50%	75%	95%	99%	MAX
JAN	1001	1003	1008	1010	1012	1013	1015	1017	1022
FEB	998	1001	1007	1010	1011	1012	1015	1017	1022
MAR	999	1004	1007	1010	1011	1012	1014	1016	1022
APR	1001	1005	1008	1010	1012	1013	1015	1016	1019
MAY	999	1001	1009	1011	1013	1014	1016	1017	1020
JUN	1000	1004	1010	1012	1014	1015	1017	1020	1023
JUL	1007	1010	1011	1013	1014	1015	1017	1019	1023
AUG	999	1000	1004	1012	1014	1015	1017	1019	1024
SEP	999	1001	1010	1012	1014	1015	1016	1018	1023
OCT	1000	1008	1011	1012	1014	1015	1017	1019	1021
NOV	998	999	1009	1012	1013	1015	1017	1020	1023
DEC	998	999	1007	1011	1012	1014	1016	1017	1022

PERIOD: (PRIMARY) 1929-1978
(OVER-ALL) 1878-1978

JANUARY

AREA 0034 GUAYAQUIL
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TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

PRECIPITATION TYPE										OTHER WEATHER PHENOMENA					
WIND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST SNOW	NO SIG WEA
N	7.4	.0	.0	.0	.0	.0	.0	7.4	5.6	.0	.0	.0	.0	.0	87.0
NE	7.7	.0	3.8	.0	.0	.0	.0	11.5	.0	.0	.0	.0	7.7	.0	80.8
E	.0	8.7	2.9	.0	.0	.0	.0	11.6	.0	.0	.0	.0	5.8	.0	82.6
SE	1.1	2.2	2.2	.0	.0	.0	.0	5.4	1.3	.5	4.3	.0	.0	.0	88.4
S	1.0	.7	1.6	.0	.0	.0	.0	3.3	.7	.1	.9	.0	.9	.0	94.1
SW	.9	.9	1.3	.0	.0	.0	.0	3.1	1.9	.4	.0	.0	.1	.0	94.4
W	.8	.0	.8	.0	.0	.0	.0	1.6	.6	.8	.0	.0	.8	.0	96.2
NW	.0	.0	4.1	.0	.0	.0	.0	4.1	5.2	.0	.0	.0	.0	.0	90.7
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	2.9	.0	5.9	.0	.0	.0	.0	8.8	5.9	.0	.0	.0	2.9	.0	82.4
TOT PCT	1.1	.9	1.6	.0	.0	.0	.0	3.6	1.5	.3	.7	.0	.7	.0	93.3
TOT OBS:	1365														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST BLWG SNOW	NO SIG WEA
00603	.0	.3	.8	.0	.0	.0	.0	1.1	.8	.8	.3	.0	.5	.0	96.4
06009	.0	1.5	1.8	.0	.0	.0	.0	3.3	1.1	.4	1.1	.0	.7	.0	93.4
12015	3.7	1.7	2.6	.0	.0	.0	.0	8.0	4.0	.0	.3	.0	.6	.0	87.1
18021	.5	.2	1.2	.0	.0	.0	.0	2.0	.2	.0	1.0	.0	.7	.0	96.0
TOT PCT	1.1	.9	1.6	.0	.0	.0	.0	3.5	1.5	.3	.6	.0	.6	.0	93.4
TOT OBS:	1385														

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							48+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)						
	0-3	4-10	11-21	22-33	34-47	00	03					06	09	12	15	18	21	
N	.2	1.5	.1	.0	.0	.0		1.9	6.9	1.4	.0	1.1	2.2	1.5	.0	3.1	2.0	
NE	.2	.8	.0	.0	.0	.0		1.1	6.0	.2	4.3	.8	1.6	1.7	3.7	1.5	.0	
E	.4	1.1	.1	.0	.0	.0		1.5	5.3	1.1	.0	1.4	3.2	.9	.0	2.3	1.9	
SE	.9	5.8	.9	.0	.0	.0		7.5	7.0	6.4	13.0	5.1	2.8	7.8	14.8	10.6	7.5	
S	3.4	23.4	7.8	.1	.0	.0		34.8	8.1	28.9	28.3	39.3	34.6	39.8	58.3	35.0	23.1	
SW	3.8	26.9	6.3	.0	.0	.0		37.1	7.8	40.9	41.3	37.0	38.6	38.6	23.1	31.8	40.1	
W	1.3	7.7	1.0	.0	.0	.0		10.0	6.6	16.1	4.3	8.5	8.0	4.7	.0	8.5	19.9	
NW	.6	1.7	.2	.0	.0	.0		2.5	5.6	2.7	4.3	2.6	1.8	.9	.0	3.3	4.1	
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	3.6							3.6	.0	2.4	4.3	4.1	7.2	4.1	.0	3.8	1.4	
TOT OBS	305	1460	349	3	0	0		2117	7.3	468	23	370	125	435	27	522	147	
TOT PCT	14.4	69.0	16.5	.1	.0	.0		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)			
	0-6	7-16	17-27	28-40	41+						00	06	12	18
N	1.0	.9	.0	.0	.0			1.9	6.9		1.4	1.4	1.4	2.9
NE	.7	.4	.0	.0	.0			1.1	6.0		.4	1.0	1.8	1.2
E	1.3	.2	.0	.0	.0			1.5	5.3		1.0	1.9	.8	2.2
SE	4.1	3.3	.1	.0	.0			7.5	7.0		6.7	4.5	8.2	9.9
S	14.8	18.8	1.1	.0	.0			34.8	8.1		28.9	38.1	40.9	32.4
SW	16.1	20.1	.8	.0	.0			37.1	7.8		40.9	37.4	37.7	33.7
W	5.9	4.1	.0	.0	.0			10.0	6.6		15.6	8.4	4.4	11.0
NW	1.8	.7	.0	.0	.0			2.5	5.6		2.8	2.4	.9	3.5
VAR	.0	.0	.0	.0	.0			.0	.0		.0	.0	.0	.0
CALM	3.6							3.6	.0		2.4	4.8	3.9	3.3
TOT OBS	1045	1027	45	0	0			2117	7.3		491	495	462	669
TOT PCT	49.4	48.5	2.1	.0	.0			100.0			100.0	100.0	100.0	100.0

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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)			48+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47				
0000Z	2.4	10.8	72.5	14.3	.0	.0	.0	7.1	100.0	491
0600Z	4.8	6.7	67.7	20.4	.4	.0	.0	7.9	100.0	495
1200Z	3.9	13.9	66.7	15.6	.0	.0	.0	7.1	100.0	462
1800Z	3.3	11.8	68.9	15.8	.1	.0	.0	7.1	100.0	669
TOT	76	229	1460	349	3	0	0	7.3		2117
PCT	3.6	10.8	69.0	16.5	.1	.0	.0		100.0	

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & 8	TOTAL	MEAN CLOUD COVER
N	.0	.3	.3	.3		6.0
NE	.1	.3	.3	.3		6.3
E	.0	.4	.2	.2		5.1
SE	.9	1.1	1.5	2.5		5.6
S	7.5	4.8	14.2	11.9		5.4
SW	7.0	6.9	15.9	10.6		5.3
W	1.0	1.6	4.0	1.2		5.2
NW	.1	.3	.9	.3		5.9
VAR	.0	.0	.0	.0		.0
CALM	.0	.5	1.1	1.0		5.5
TOT OBS	16.0	15.3	36.9	27.9	961	5.4
TOT PCT	17.3	15.9	38.4	28.4	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8)
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

	000	150	300	600	1000	2000	3500	5000	6500	8000+	NH <5/8	TOTAL
	149	299	599	999	1999	3499	4999	6499	7999		ANY HGT	OBS
N	.0	.1	.0	.1	.2	.1	.0	.0	.0	.0	.4	
NE	.0	.0	.0	.2	.2	.0	.0	.0	.0	.0	.5	
E	.0	.0	.1	.1	.3	.0	.0	.0	.0	.0	.4	
SE	.1	.0	.4	.8	.6	1.2	.2	.0	.0	.0	2.8	
S	.1	.2	.7	3.7	5.9	4.1	1.5	.4	.4	.5	20.9	
SW	.2	.0	.5	3.4	5.8	3.6	1.6	.4	.7	1.5	22.8	
W	.0	.0	.2	1.2	1.4	.1	.3	.0	.1	.2	4.4	
NW	.0	.1	.1	.1	.1	.2	.3	.0	.0	.1	.5	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.3	.2	.4	.3	.2	.0	.0	.0	.0	1.9	
TOT OBS	16.0	15.3	36.9	27.9	961							961
TOT PCT	.4	.4	2.2	9.7	14.8	9.6	4.1	.8	1.1	2.3	54.6	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE
OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)							
	>10	>5	>2	>1	>1/2	>1/4	>50YD	>0
NK >6500	3.4	3.6	3.6	3.6	3.6	3.6	3.6	3.6
NK >5000	4.2	4.5	4.5	4.5	4.5	4.5	4.5	4.5
NK >3500	7.9	8.4	8.5	8.5	8.5	8.5	8.5	8.5
NK >2000	16.0	17.7	18.1	18.1	18.1	18.1	18.1	18.1
NK >1000	29.1	32.3	32.7	32.7	32.7	32.7	32.7	32.7
NK >600	37.5	41.7	42.3	42.3	42.3	42.3	42.3	42.3
NK >300	38.6	43.8	44.5	44.6	44.6	44.6	44.6	44.6
NK >150	38.9	44.1	44.9	45.0	45.0	45.0	45.0	45.0
NK >0	39.1	44.3	45.1	45.3	45.3	45.4	45.4	45.4
TOTAL	378	428	436	438	438	439	439	439

TOTAL NUMBER OF OBS: 966

PCT FREQ NH <5/8: 54.6

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

	0	1	2	3	4	5	6	7	8	OBSCD	TOTAL OBS
	12.1	12.8	11.3	9.9	7.8	7.3	10.7	9.8	18.0	.3	1033

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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.1
	TOT %	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.1
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1<2	PCP	.0	.0	.0	.0	.1	.1	.0	.0	.0	.0	.2	.2
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.1	.1	.0	.0	.0	.0	.2	.2
2<5	PCP	.1	*	*	.1	.0	.0	.0	.0	.0	.1	.3	.3
	NO PCP	.1	.1	.0	.0	.0	.2	.1	.1	.0	.1	.6	.6
	TOT %	.1	.1	*	.1	.0	.2	.1	.1	.0	.2	.9	.9
5<10	PCP	.0	.1	.1	.3	.6	.5	.1	.0	.0	.1	1.8	1.8
	NO PCP	.1	.0	.2	1.2	4.9	4.8	1.3	.4	.0	.4	13.1	13.1
	TOT %	.1	.1	.3	1.5	5.5	5.4	1.3	.4	.0	.5	14.9	14.9
10+	PCP	.0	.0	.0	.0	.5	.6	.1	.1	.0	.1	1.4	1.4
	NO PCP	.8	.7	.9	4.8	31.0	33.2	8.0	1.3	.0	1.9	82.6	82.6
	TOT %	.8	.7	.9	4.8	31.6	33.8	8.1	1.4	.0	2.0	83.9	83.9
TOT OBS		1.0	.9	1.2	6.3	37.2	39.5	9.5	1.8	.0	2.6	100.0	1332
TOT PCT		1.0	.9	1.2	6.3	37.2	39.5	9.5	1.8	.0	2.6	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	*	*	.0	.0	.0	.0	.0	.1	.1
	4-10	.0	.0	.0	.1	.2	*	.0	.0	.0	.0	.4	.4
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.2	.2	*	.0	.0	.0	.0	.4	.4
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	*	.1	.0	.0	.0	.0	.1	.1
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	*	.1	.0	.0	.0	.0	.1	.1
1<2	0-3	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1	.1
	4-10	.0	*	*	.0	.1	.1	.0	.0	.0	.0	.2	.2
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	*	*	.0	.1	.2	.0	.0	.0	.0	.3	.3
2<5	0-3	.0	.0	.0	.0	.1	.1	.1	.1	.0	.1	.4	.4
	4-10	.1	.1	*	.2	*	.2	.1	*	.0	.0	.8	.8
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.1	.1	*	.2	.2	.3	.2	.1	.0	.1	1.2	1.2
5<10	0-3	.1	.0	.1	.1	.2	.6	.2	.1	.0	.6	1.9	1.9
	4-10	.1	.1	.1	1.2	3.4	3.8	1.2	.4	.0	.0	10.3	10.3
	11-21	.0	.0	*	.1	1.2	.8	*	.0	.0	.0	2.2	2.2
	22+	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1	.1
	TOT %	.1	.1	.3	1.4	4.9	5.2	1.5	.5	.0	.6	14.4	14.4
10+	0-3	.1	.1	.2	.6	3.3	3.4	1.2	.4	.0	2.6	11.8	11.8
	4-10	.8	.9	.7	3.3	19.3	23.7	6.7	1.0	.0	.0	56.1	56.1
	11-21	.1	.1	.0	.5	7.2	6.4	.9	.2	.0	.0	15.4	15.4
	22+	.0	.0	.0	.0	.1	.1	.0	.0	.0	.0	.1	.1
	TOT %	1.0	.7	.9	4.4	29.9	33.6	8.8	1.6	.0	2.6	83.4	83.4
TOT OBS		1.3	1.0	1.2	6.0	35.3	39.3	10.4	2.2	.0	3.2	100.0	1601
TOT PCT		1.3	1.0	1.2	6.0	35.3	39.3	10.4	2.2	.0	3.2	100.0	

PERIOD: (PRIMARY) 1929-1978
(OVER-ALL) 1878-1978

JANUARY

AREA 0034 GUA/AQUIL
1.95 81.5W

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NM >4/8) AND
OCCURRENCE OF NM <3/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NM <5/8 ANY HGT	TOTAL OBS
00603	.0	.8	.8	6.9	11.5	7.7	4.2	1.2	.8	3.8	37.7	62.3	260
06609	1.0	.5	1.0	7.8	20.8	18.8	4.7	.5	1.0	1.6	57.8	42.2	192
12615	.0	.4	4.5	15.1	18.9	9.8	4.2	.4	1.1	1.5	55.8	44.2	265
18621	.7	.0	2.1	7.4	7.8	4.2	3.2	1.1	1.4	2.5	30.4	69.6	283
TOT	4	4	22	94	142	94	40	8	11	24	443	557	1000
PCT	.4	.4	2.2	9.4	14.2	9.4	4.0	.8	1.1	2.4	44.3	55.7	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00603	.3	.0	.3	1.5	15.1	82.9	392
06609	.8	.0	.3	1.3	19.1	78.5	377
12615	.5	.5	.3	2.1	12.8	83.9	384
18621	.2	.0	.4	.2	12.0	86.5	468
TOT	7	2	5	20	239	1348	1621
PCT	.4	.1	.3	1.2	14.7	83.2	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR
CEILING HGT (FEET/NM >4/8), BY HOUR

HOUR (GMT)	<150 <500	<600 <1	<1000 <5	1000+ AND 5+	NM <5/8 AND 5+	TOTAL OBS
00603	.0	1.6	9.1	29.6	61.3	253
06609	1.1	2.7	11.4	48.6	40.0	185
12615	.0	5.0	20.8	35.4	43.8	260
18621	.7	3.0	10.8	20.5	68.7	268
TOT	4	30	127	312	527	966
PCT	.4	3.1	13.1	32.3	54.6	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
85/89	.0	.0	.0	.0	.3	.7	.3	.6	22	1.9
80/84	.0	.0	.0	.2	.9	3.9	3.4	3.5	139	12.0
75/79	.0	.0	.0	.1	.5	11.7	31.8	14.0	675	58.1
70/74	.0	.0	.0	.0	.0	.8	14.2	11.9	312	26.9
65/69	.0	.0	.0	.0	.0	.0	.3	.9	14	1.2
TOTAL	0	0	0	3	21	198	581	359	1162	100.0
PCT	.0	.0	.0	.3	1.8	17.0	50.0	30.9		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.0	.0	.0	.2	.4	.6	.5	.1	.0	.1
.3	.3	1.0	3.7	4.0	2.1	.4	.0	.0	.1
.6	.5	.8	3.5	20.0	23.6	6.1	1.1	.0	1.9
.2	.1	.2	2.4	12.7	8.7	1.4	.4	.0	.8
.0	.0	.0	.1	.5	.5	.0	.0	.0	.2
1.0	.7	1.2	7.2	37.3	37.5	10.1	1.9	.0	3.0

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00603	86	83	81	76	71	69	66	76.1	487
06609	82	80	79	75	71	68	67	75.1	498
12615	89	83	80	76	71	68	65	75.5	459
18621	93	87	84	78	73	72	70	78.3	654
TOT	93	85	82	76	71	69	65	76.4	2098

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-39	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00603	.0	.0	.7	11.3	56.7	31.3	87	300
06609	.0	.0	.0	11.6	50.0	38.4	87	242
12615	.0	.3	.3	7.6	50.8	40.9	88	301
18621	.0	.6	5.4	34.3	43.9	15.8	82	335
TOT	0	3	21	200	591	363	86	1178

PERIOD: (PRIMARY) 1929-1978
(OVER-ALL) 1878-1978

JANUARY

AREA 0034 GUAYAQUIL
1.9S 81.5W

TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	65 68	69 72	73 76	77 80	81 84	85 88	89 92	>92	TOT	W FOG	WD FOG
14/16	.0	.0	.0	.0	.1	.0	.1		2	.0	.2
11/13	.0	.0	.1	.1	.2	.3	.0		8	.0	.7
9/10	.0	.1	.0	.4	.2	.2	.1	.0	11	.0	.9
7/8	.0	.0	.3	.8	.7	.4	.0	.0	26	.0	2.2
5	.0	.0	.1	.4	.3	.3	.0	.0	13	.0	1.1
4	.0	.1	.3	.9	.5	.0	.0	.0	22	.0	1.9
3	.0	.1	.8	1.3	1.1	.1	.0	.0	40	.0	3.4
2	.0	.1	.8	2.1	.5	.0	.0	.0	42	.0	3.5
1	.0	.4	1.9	3.1	.8	.0	.0	.0	74	.0	6.2
0	.3	1.3	3.5	5.2	.8	.0	.0	.0	129	.2	10.7
-1	.3	1.5	5.7	7.6	.5	.0	.0	.0	185	.0	15.6
-2	.2	1.6	8.4	6.6	.3	.0	.0	.0	202	.3	16.8
-3	.2	1.1	9.6	4.2	.2	.0	.0	.0	181	.3	14.9
-4	.1	.9	6.6	1.8	.0	.0	.0	.0	111	.0	9.4
-5	.0	.6	4.2	.5	.1	.0	.0	.0	64	.0	5.4
-6	.0	.6	1.5	.5	.0	.0	.0	.0	31	.0	2.6
-7/-8	.0	.4	1.3	.3	.0	.0	.0	.0	25	.0	2.1
-9/-10	.0	.3	1.0	.2	.0	.0	.0	.0	17	.0	1.4
-11/-13	.1	.0	.1	.0	.0	.0	.0	.0	2	.0	.2
TOTAL	.9	.5	5.1	.0	.0	.0	.0	.0	1	.0	.1
PCT	.8	9.1	46.5	36.1	6.1	1.3	.1	.1	100.0	.8	99.2

PERIOD: (OVER-ALL) 1963-1978

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	N						PCT	NE						PCT
	1-3	4-10	11-21	22-33	34-47	48+		1-3	4-10	11-21	22-33	34-47	48+	
<1	.0	.3	.0	.0	.0	.0	.3	.2	.3	.0	.0	.0	.0	.5
1-2	.1	.3	.7	.0	.0	.0	.8	.0	.2	.0	.0	.0	.0	.2
3-4	.0	.5	.0	.0	.0	.0	.5	.0	.1	.2	.0	.0	.0	.3
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.1	1.1	.2	.0	.0	.0	1.4	.2	.6	.2	.0	.0	.0	1.0

HGT	E						PCT	SE						PCT
	1-3	4-10	11-21	22-33	34-47	48+		1-3	4-10	11-21	22-33	34-47	48+	
<1	.0	.3	.0	.0	.0	.0	.3	.8	.4	.0	.0	.0	.0	1.2
1-2	.0	.1	.0	.0	.0	.0	.1	.2	1.2	.4	.0	.0	.0	1.8
3-4	.0	.1	.0	.0	.0	.0	.1	.0	1.2	.6	.0	.0	.0	1.8
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.1
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.6	.0	.0	.0	.0	.6	1.0	2.9	1.1	.0	.0	.0	4.9

PERIOD: (OVER-ALL) 1963-1978

JANUARY

AREA 0034 GUAYAQUIL
1.95 81.5W

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	1.8	3.2	.0	.0	.0	.0	5.0	1.2	4.1	.2	.0	.0	.0	5.5
1-2	.7	9.5	2.6	.0	.0	.0	12.8	.4	13.5	3.1	.0	.0	.0	17.0
3-4	.1	7.4	4.7	.0	.0	.0	12.2	1.2	9.0	6.0	.2	.0	.0	16.4
5-6	.0	1.2	2.1	.2	.0	.0	3.5	.2	2.4	1.4	.0	.0	.0	4.0
7	.0	.1	.3	.0	.0	.0	.4	.2	.2	.1	.0	.0	.0	.5
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.2	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	2.7	21.6	9.7	.2	.0	.0	36.2	3.2	29.2	10.8	.2	.0	.0	43.4

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	1.4	2.5	.0	.0	.0	.0	3.9	.2	.1	.0	.0	.0	.0	.3	
1-2	.2	3.7	.3	.0	.0	.0	4.2	.0	.5	.0	.0	.0	.0	.5	
3-4	.0	1.0	.3	.0	.0	.0	1.3	.0	.4	.2	.0	.0	.0	.6	
5-6	.0	.0	.2	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	1.6	7.2	.8	.0	.0	.0	9.6	.2	1.1	.2	.0	.0	.0	1.4	96.6

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT DBS
<1	9.1	11.2	.2	.0	.0	.0	20.5	
1-2	2.3	28.7	6.5	.0	.0	.0	37.4	
3-4	1.5	19.5	12.0	.2	.0	.0	33.2	
5-6	.2	3.6	3.8	.2	.0	.0	7.6	
7	.2	.4	.4	.0	.0	.0	.9	
8-9	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.2	.0	.0	.0	.0	.2	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	13.3	63.6	22.8	.4	.0	.0	100.0	527

PERIOD: (OVER-ALL) 1949-1978

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	7.5	19.6	24.5	5.8	.8	.2	.0	.1	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	505	3
6-7	.0	2.6	6.7	6.2	1.1	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	143	4
8-9	.0	.8	1.6	2.8	1.3	.4	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	60	5
10-11	.0	.9	.7	.5	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	21	4
12-13	.0	.0	.5	.6	.2	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	13	5
13-14	.0	.0	.0	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	4	5
INDET	4.6	3.0	3.5	1.1	.0	.7	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	111	2
TOTAL	103	231	321	149	31	15	3	1	2	1	0	0	0	0	0	0	0	0	0	857	3
PCT	12.0	27.0	37.5	17.4	3.6	1.8	.4	.1	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	

PERIOD: (PRIMARY) 1936-1978
(OVER-ALL) 1875-1978

FEBRUARY

AREA 0034 GUAYAQUIL
1.95 81.9W

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

PRECIPITATION TYPE										OTHER WEATHER PHENOMENA					
WIND DIR	RAIN	RAIN SHWR	DRZL	FRIG PCPN	SNOW	OTHER PRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST SNOW	NO SIG MEA
N	14.0	.0	7.5	.0	.0	.0	.0	21.5	1.4	1.9	.0	.0	.0	.0	75.2
NE	7.6	.0	.0	.0	.0	.0	.0	7.6	6.5	2.2	2.2	.0	.0	.0	81.6
E	4.6	1.5	3.1	.0	.0	.0	.0	9.2	1.5	.0	.0	.0	.0	.0	89.3
SE	2.2	.5	1.1	.0	.0	.0	.0	3.8	1.6	.0	3.5	.0	.0	.0	91.0
S	1.6	.8	1.3	.0	.0	.0	.0	3.7	1.2	.2	.6	.0	.9	.0	93.4
SW	.8	.6	.3	.0	.0	.0	.0	1.7	.8	.0	.0	.0	.5	.0	97.1
W	2.3	.4	.0	.0	.0	.0	.0	2.7	1.3	.0	2.3	.0	.0	.0	93.7
NW	5.6	1.9	1.9	.0	.0	.0	.0	9.4	.9	.0	.0	.0	.0	.0	89.7
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	4.3	1.7	1.7	.0	.0	.0	.0	6.9	2.6	.9	1.7	.0	3.4	.0	84.5
TOT PCT	2.6	.8	1.2	.0	.0	.0	.0	4.5	1.4	.3	1.0	.0	.7	.0	92.1
TOT OBS:	1535														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE								OTHER WEATHER PHENOMENA						
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THOR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST BLWG SNOW	NO SIG WEA
00003	2.1	.7	.2	.0	.0	.0	.0	3.0	.7	.5	.7	.0	.5	.0	94.7
06009	1.9	1.3	.6	.0	.0	.0	.0	3.8	1.3	.6	1.9	.0	1.0	.0	91.4
12015	5.6	.7	2.8	.0	.0	.0	.0	8.9	3.3	.0	.5	.0	.5	.0	86.9
18021	.7	.5	.7	.0	.0	.0	.0	1.9	.9	.0	1.4	.0	.7	.0	95.1
TOT PCT TOT OBS:	2.6 1602	.7	1.1	.0	.0	.0	.0	4.4	1.6	.2	1.1	.0	.6	.0	92.1

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)						
	0-3	4-10	11-21	22-33	34-47	48+	00				03	06	09	12	15	18	21
N	1.5	2.2	.3	.1	.0	.0	4.0	5.8	2.9	3.6	2.1	4.5	3.3	4.7	6.5	4.9	
NE	1.0	1.9	.3	*	.0	.0	3.2	5.9	2.2	9.3	2.6	5.4	2.5	2.1	4.5	2.7	
E	1.4	2.8	.2	.0	.0	.0	4.4	5.1	2.7	11.4	2.4	6.9	4.9	8.5	5.7	3.1	
SE	2.8	8.6	.4	.0	.0	.0	11.8	5.7	7.9	15.7	7.2	6.5	14.0	22.5	16.4	9.7	
S	4.6	20.1	3.6	*	.0	.0	28.3	7.1	23.5	28.6	28.1	24.1	34.3	37.3	28.0	26.3	
SW	3.6	18.3	3.1	*	.0	.0	25.1	7.0	30.7	24.3	30.2	25.2	22.8	19.9	19.4	24.1	
W	2.6	7.2	.9	.1	.0	.0	10.7	6.2	19.9	5.7	12.9	5.6	4.3	3.4	7.8	15.0	
NW	1.1	2.7	.3	.0	.0	.0	4.1	5.8	4.8	1.4	3.7	5.8	3.7	.0	3.7	6.2	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	8.4						8.4	.0	5.4	.0	10.6	16.1	10.3	1.7	7.9	8.0	
TOT OBS	588	1793	196	5	0	0	2182	6.0	482	35	369	112	458	59	554	113	
TOT PCT	26.9	63.8	9.0	.2	.0	.0	100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	

TABLE 3A

WIND DIR	0-6	WIND SPEED (KNOTS)				41+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)			
		7-16	17-27	28-40	00 03					06 09	12 15	18 21	
N	2.7	1.2	.1	.0	.0		4.0	5.8	2.9	2.7	3.4	6.2	
NE	2.1	1.0	.1	.0	.0		3.2	5.9	2.7	3.3	2.4	4.2	
E	3.3	1.1	.0	.0	.0		4.4	5.1	3.3	3.5	5.3	5.2	
SE	7.8	4.0	*	.0	.0		11.8	5.7	8.5	7.1	14.9	15.3	
S	14.2	13.8	.3	*	.0		28.3	7.1	23.9	27.2	34.7	27.7	
SW	12.8	11.9	.3	*	.0		25.1	7.0	30.2	29.1	22.5	20.2	
W	6.7	3.9	.1	.0	.0		10.7	6.2	19.0	11.2	4.2	9.0	
NW	2.6	1.4	.0	.0	.0		4.1	5.8	4.5	4.2	3.3	4.2	
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	
CALM	8.4						8.4	.0	5.0	11.9	9.3	7.9	
TOT OBS	1324	897	20	1	0	2182		6.0	517	481	517	667	
TOT PCT	60.7	38.4	.9	*	.0		100.0		100.0	100.0	100.0	100.0	

PERIOD: (PRIMARY) 1936-1978
(OVER-ALL) 1875-1978

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1.9S 81.9W

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)				48+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47					
0000Z	9.0	17.6	68.7	8.5	.2	.0	.0	.0	6.0	100.0	517
0600Z	11.9	16.4	61.5	10.2	.0	.0	.0	.0	6.0	100.0	481
1201Z	9.3	20.7	60.5	9.1	.4	.0	.0	.0	6.0	100.0	517
1802Z	7.9	19.0	64.3	8.4	.3	.0	.0	.0	5.9	100.0	667
TOT	184	404	1393	196	.5	.0	.0	.0	6.0		2182
PCT	8.4	18.5	63.8	9.0	.2	.0	.0	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBS	TOTAL OBS	MEAN CLOUD COVER
N	.1	.5	.8	1.1		6.3
NE	.6	.1	1.1	1.0		5.7
E	.9	.4	1.9	.7		5.0
SE	3.3	2.8	3.2	1.6		4.2
S	5.3	5.2	10.9	8.7		5.3
SW	4.4	3.8	10.7	6.7		5.4
W	1.5	1.7	5.1	3.4		5.6
NW	.6	.4	1.3	.9		5.4
VAR	.0	.0	.0	.0		.0
CALM	1.5	.9	4.3	2.3		5.6
TOT OBS	193	159	417	283	1062	5.3
TOT PCT	18.2	15.9	39.3	26.6	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8)
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

	000	150	300	600	1000	2000	3500	5000	6500	8000+	NH <5/8	TOTAL
	149	299	599	999	1999	3499	4999	6499	7999		ANY HGT	OBS
N	.0	.1	.3	.2	.4	.1	.2	.*	.0	.0	1.2	
NE	.0	.1	.1	.5	.3	.5	.1	.*	.0	.1	1.1	
E	.0	.0	.3	.2	.4	.4	.1	.0	.1	.2	2.2	
SE	.0	.0	.*	.7	1.1	.6	.2	.1	.1	.2	8.0	
S	.0	.0	.5	2.4	3.6	2.9	1.6	.4	.2	.8	17.8	
SW	.0	.3	1.1	2.0	4.2	2.4	1.2	.2	.*	.6	14.4	
W	.0	.0	.2	.7	1.9	.8	.7	.2	.4	.4	6.5	
NW	.0	.0	.0	.2	.6	.3	.2	.0	.1	.0	1.8	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.3	.5	.3	1.2	.7	.2	.0	.3	.4	5.6	
TOT OBS	0	8	21	76	145	92	47	11	13	28	621	1062
TOT PCT	.0	.8	2.0	7.2	13.7	8.7	4.4	1.0	1.2	2.6	58.5	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE
OF CEILING HEIGHT (NH >4/8) AND VSBY (NH)

CEILING (FEET)	VSBY (NH)				VSBY (NH)				VSBY (NH)			
	>10	>5	>2	>1	>1/2	>1/4	>50YD	>0	>10	>5	>2	>1
>6500	3.3	3.6	3.7	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8
>5000	4.3	4.8	4.9	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
>3500	8.1	9.0	9.2	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4
>2000	15.7	17.1	17.5	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7	17.7
>1000	27.6	30.5	31.1	31.3	31.3	31.3	31.3	31.3	31.3	31.3	31.3	31.3
>600	34.3	37.8	38.5	38.7	38.7	38.7	38.7	38.7	38.7	38.7	38.7	38.7
>300	35.5	39.6	40.5	40.7	40.7	40.7	40.7	40.7	40.7	40.7	40.7	40.7
>150	35.9	40.3	41.2	41.5	41.5	41.5	41.5	41.5	41.5	41.5	41.5	41.5
>0	35.9	40.3	41.2	41.5	41.5	41.5	41.5	41.5	41.5	41.5	41.5	41.5
TOTAL	395	443	493	456	456	456	456	456	456	456	456	456

TOTAL NUMBER OF OBS: 1100

PCT FREQ NH <5/8: 58.5

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

	0	1	2	3	4	5	6	7	8	CBSCD	TOTAL OBS
	11.5	13.3	13.9	10.3	8.0	6.6	9.1	10.2	17.1	.0	1175

PERIOD: (PRIMARY) 1956-1978
(OVER-ALL) 1875-1978

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1.95 81.9W

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1<2	PCP	.1	.1	.0	.0	*	*	.0	.0	.0	.0	.2	.2
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.1	.1	.0	.0	*	*	.0	.0	.0	.0	.2	.2
2<5	PCP	.1	.1	.1	.0	.2	.0	.1	.1	.0	.0	.6	.6
	NO PCP	.1	.0	.0	.1	.1	.1	.1	.1	.0	.2	.8	.8
	TOT %	.2	.1	.1	.1	.3	.1	.2	.2	.0	.2	1.4	1.4
5<10	PCP	.4	.1	.1	.2	.5	.1	.3	.1	.0	.3	2.2	2.2
	NO PCP	.4	.8	.3	1.7	2.4	2.3	1.2	.5	.0	.8	10.4	10.4
	TOT %	.8	1.0	.4	1.9	2.9	2.4	1.4	.6	.0	1.2	12.6	12.6
10+	PCP	.2	.0	.1	.3	.4	.3	.0	.1	.0	.2	1.6	1.6
	NO PCP	2.4	2.1	3.6	9.6	24.5	22.9	10.2	2.7	.0	6.3	84.2	84.2
	TOT %	2.6	2.1	3.7	9.9	24.9	23.2	10.2	2.7	.0	6.5	85.8	85.8
TOT OBS													1471
TOT PCT		3.6	3.1	4.2	11.8	28.2	25.8	11.9	3.6	.0	7.6	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.1	.1	.0	.0	*	*	.0	.0	.0	.0	.2	.2
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.1	.1	.0	.0	*	*	.0	.0	.0	.0	.2	.2
2<5	0-3	.1	.0	.0	.0	.1	.0	.1	.0	.0	.2	.4	.4
	4-10	*	*	.1	.1	.1	.1	.2	.2	.0	.7	.7	.7
	11-21	.1	*	.0	.0	.1	.0	.0	.1	.0	.3	.3	.3
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.2	.1	.1	.1	.3	.1	.2	.2	.0	.2	1.4	1.4
5<10	0-3	.2	.3	.2	.5	.5	.6	.2	.1	.0	1.4	4.0	4.0
	4-10	.7	.5	.2	1.2	2.0	1.6	1.1	.4	.0	.7	7.7	7.7
	11-21	.0	.1	.0	*	.3	.3	.1	*	.0	.9	.9	.9
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.8	.9	.5	1.8	2.9	2.5	1.4	.5	.0	1.4	12.6	12.6
10+	0-3	1.2	.5	1.3	2.1	3.4	3.3	2.5	.8	.0	7.4	22.4	22.4
	4-10	1.3	1.3	2.1	6.7	17.1	16.6	7.0	2.3	.0	54.5	54.5	54.5
	11-21	.2	.2	.2	.3	3.6	3.1	1.0	.1	.0	.1	.1	.1
	22+	.1	.0	.0	.0	*	*	.0	.0	.0	.0	.0	.0
	TOT %	2.8	1.9	3.5	9.2	24.1	23.1	10.6	3.2	.0	7.4	85.8	85.8
TOT OBS													1655
TOT PCT		3.8	3.0	4.1	11.0	27.3	25.7	12.2	3.9	.0	8.9	100.0	

PERIOD: (PRIMARY) 1936-1978
(OVER-ALL) 1875-1978

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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NM >4/8) AND
OCCURRENCE OF NM <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NM <5/8 ANY MGT	TOTAL OBS
00003	.0	.7	1.0	6.0	9.1	6.7	3.7	.7	2.3	1.3	31.5	68.5	298
06009	.0	.0	2.3	11.3	19.0	10.4	5.0	1.4	1.8	2.3	53.4	46.6	221
12015	.0	1.6	3.2	7.1	17.1	10.6	5.8	1.6	.3	4.2	51.6	48.4	310
18021	.0	.3	1.3	5.7	9.1	6.0	2.7	1.0	.3	2.3	28.9	71.1	298
TOT	0	8	22	42	149	94	48	13	13	29	458	669	1127
PCT	.0	.7	2.0	7.3	13.2	8.3	4.3	1.2	1.2	2.6	40.6	59.4	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.0	.0	.0	.7	15.0	84.3	428
06009	.0	.0	.0	1.6	15.9	82.6	384
12015	.0	.0	.5	2.8	13.6	83.2	435
18021	.0	.0	.4	.8	9.1	89.6	472
TOT	0	0	4	25	227	1463	1719
PCT	.0	.0	.2	1.5	13.2	85.1	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR
CEILING MGT (FEET, NM >4/8), BY HOUR

HOUR (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND 5+	NM <5/8 AND 5+	TOTAL OBS
00003	.0	1.7	8.2	24.1	67.7	291
06009	.0	2.3	15.9	39.7	44.4	214
12015	.0	4.9	13.4	38.9	47.7	306
18021	.0	1.7	8.7	21.1	70.2	289
TOT	0	30	124	335	641	1100
PCT	.0	2.7	11.3	30.5	58.3	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
95/99	.0	.0	.0	.0	.0	.1	.0	.0	1	.1
85/89	.0	.0	.0	.1	.3	1.0	.2	.5	29	2.1
80/84	.0	.0	.0	.1	1.1	12.0	6.1	4.5	323	23.8
75/79	.0	.0	.0	.1	.4	10.0	33.6	19.8	867	63.9
70/74	.0	.0	.0	.0	.0	.0	4.2	5.8	135	10.0
65/69	.0	.0	.0	.0	.0	.0	.0	.1	1	.1
TOTAL	0	0	0	5	24	311	600	416	1356	100.0
PCT	.0	.0	.0	.4	1.8	22.9	44.2	30.7		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.0	.0	.1	.0	.0	.0	.0	.0	.0	.0
.1	.0	.0	.4	.6	.4	.6	.6	.0	.0
1.3	1.5	1.1	3.0	4.9	5.2	4.0	1.1	.0	1.8
2.0	1.8	2.8	9.3	19.2	15.4	6.1	2.1	.0	5.2
.1	.1	.3	.7	3.7	3.3	.7	.1	.0	1.0
.0	.0	.0	.0	.1	.6	.0	.0	.0	.0
3.7	3.3	4.2	13.5	28.4	24.2	11.3	3.4	.0	8.0

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	87	84	82	78	73	72	70	77.9	331
06009	82	81	80	77	73	70	69	76.7	300
12015	91	85	81	77	73	71	70	77.1	524
18021	95	88	85	80	75	73	71	80.0	681
TOT	95	86	84	78	73	71	69	78.1	2236

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	.6	1.1	24.1	46.2	28.0	85	357		
06009	.0	.3	.7	13.1	47.9	37.9	87	290		
12015	.0	.0	.5	13.0	47.1	39.3	87	399		
18021	.0	.8	4.8	39.9	37.4	17.2	81	396		
TOT	0	6	27	334	640	435	85	1442		

PERIOD: (PRIMARY) 1936-1978
(OVER-ALL) 1875-1978

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AREA 0034 GUAYAQUIL
1.95 81.9W

TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	69 72	73 76	77 80	81 84	83 88	89 92	>92	TOT	W FOG	WD FOG
17/19	.0	.0	.0	.0	.1	.0	.0	1	.0	.1
11/13	.0	.0	.1	.1	.2	.1	.1	7	.0	.5
9/10	.0	.1	.2	.0	.1	.2	.0	7	.0	.5
7/8	.0	.2	.5	.8	.5	.0	.0	24	.0	1.9
6	.1	.2	.3	.2	.1	.0	.0	16	.1	1.2
5	.1	.5	1.0	.2	.4	.0	.0	29	.1	2.2
4	.0	.2	1.5	1.2	.1	.0	.0	39	.0	3.0
3	.1	1.0	1.9	1.5	.2	.0	.0	61	.1	4.7
2	.2	1.6	4.3	1.8	.2	.0	.0	103	.1	7.9
1	.2	2.9	5.0	1.9	.2	.0	.0	133	.2	10.2
0	.6	5.0	9.8	2.3	.0	.0	.0	229	.2	17.5
-1	.5	5.3	10.0	1.1	.0	.0	.0	217	.5	16.4
-2	.3	3.7	8.8	.8	.1	.0	.0	177	.2	13.6
-3	.0	2.6	5.0	.1	.0	.0	.0	98	.0	7.6
-4	.1	1.9	2.8	.2	.0	.0	.0	64	.0	5.0
-5	.0	1.2	1.9	.1	.0	.0	.0	41	.0	3.2
-6	.1	.8	.7	.1	.0	.0	.0	21	.0	1.6
-7/-8	.3	.9	.3	.0	.0	.0	.0	19	.0	1.5
-9/-10	.1	.1	.1	.0	.0	.0	.0	3	.0	.2
TOTAL	34	362	705	158	26	3	1	1289	1.7	127.2
PCT	2.6	28.1	54.7	12.3	2.0	.2	.1	100.0	1.3	98.7

PERIOD: (OVER-ALL) 1963-1978

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	N							PCT	NE							PCT
	1-3	4-10	11-21	22-33	34-47	48+			1-3	4-10	11-21	22-33	34-47	48+		
<1	.0	.6	.0	.0	.0	.0	.6	.4	.5	.0	.0	.0	.0	.0	.0	.9
1-2	.6	1.4	.4	.0	.0	.0	2.4	.1	1.4	.2	.0	.0	.0	.0	.0	1.8
3-4	.0	.4	.0	.0	.0	.0	.4	.0	.6	.0	.0	.0	.0	.0	.0	.6
5-6	.0	.2	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.6	2.6	.4	.0	.0	.0	3.6	.5	2.6	.2	.0	.0	.0	.0	.0	3.3

HGT	E							PCT	SE							PCT
	1-3	4-10	11-21	22-33	34-47	48+			1-3	4-10	11-21	22-33	34-47	48+		
<1	.5	.3	.0	.0	.0	.0	.8	.4	.6	.0	.0	.0	.0	.0	.0	1.0
1-2	.3	1.9	.3	.0	.0	.0	2.5	.4	6.3	.0	.0	.0	.0	.0	.0	8.8
3-4	.0	.5	.0	.0	.0	.0	.5	.0	2.3	.5	.0	.0	.0	.0	.0	2.9
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.2	.2	.0	.0	.0	.0	.0	.4
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.9	2.6	.3	.0	.0	.0	3.8	.8	9.4	.8	.0	.0	.0	.0	.0	11.1

PERIOD: (OVER-ALL) 1964-1978

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AREA 0034 GUAYAQUIL
1.95 81.9W

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	1.4	3.4	.0	.0	.0	.0	4.8	1.3	3.0	.0	.0	.0	.0	4.3
1-2	1.2	16.3	1.8	.0	.0	.0	19.4	.6	10.3	1.8	.0	.0	.0	12.7
3-4	.0	3.8	2.9	.0	.0	.0	6.7	.0	4.3	1.9	.0	.0	.0	6.1
5-6	.0	.6	1.4	.0	.0	.0	2.0	.0	.5	.8	.0	.0	.0	1.3
7	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.2
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	2.7	24.1	6.1	.0	.0	.0	32.9	1.9	18.2	4.5	.0	.0	.0	24.5

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	1.3	1.6	.0	.0	.0	.0	2.9	.3	1.0	.0	.0	.0	.0	1.3	
1-2	.5	4.7	.7	.0	.0	.0	5.9	.0	1.0	.0	.0	.0	.0	1.0	
3-4	.2	.7	.3	.0	.0	.0	1.2	.0	.2	.0	.0	.0	.0	.2	
5-6	.0	.2	.1	.0	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	2.0	7.2	1.1	.0	.0	.0	10.3	.3	2.3	.0	.0	.0	.0	2.5	92.0

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	14.9	10.9	.0	.0	.0	.0	25.8	
1-2	5.0	42.4	5.0	.0	.0	.0	52.4	
3-4	.2	12.1	3.4	.0	.0	.0	17.6	
5-6	.0	1.6	2.4	.0	.0	.0	4.0	
7	.0	.2	.0	.0	.0	.0	.2	
8-9	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	20.1	67.1	12.8	.0	.0	.0	100.0	578

PERIOD: (OVER-ALL) 1949-1978

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	7.8	19.8	14.8	5.1	1.1	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	455	2
6-7	.0	2.5	5.7	5.8	1.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	141	4
8-9	.1	2.5	4.8	4.6	1.0	.3	.0	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	108	4
10-11	.0	2.6	1.3	1.0	.5	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	51	3
12-13	.0	.0	.9	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	12	4
>13	.0	.0	.0	.3	.0	.1	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	6	7
INDEX	7.3	4.0	4.2	4.2	.3	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	160	2
TOTAL	142	292	295	153	36	7	4	3	1	0	0	0	0	0	0	0	0	0	0	933	3
PCT	15.2	31.3	31.6	16.4	3.9	.8	.4	.3	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	

PERIOD: (PRIMARY) 1933-1977
(OVER-ALL) 1868-1977

MARCH

AREA 0034 GUAYAQUIL
1.95 81.8W

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							NO SIG WEA
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG SNOW	
N	3.8	2.4	2.8	.0	.0	.0	.0	9.0	1.4	2.8	.7	.0	1.4	.0	84.7
NE	5.6	.7	.0	.0	.0	.0	.0	6.3	.0	1.4	12.6	.0	1.4	.0	78.3
E	1.4	2.9	1.4	.0	.0	.0	.0	5.8	1.1	.0	5.1	.0	2.5	.0	85.6
SE	1.4	1.2	.6	.0	.0	.0	.0	3.2	2.9	.0	1.5	.0	.8	.0	91.7
S	1.2	1.0	.5	.0	.0	.0	.0	2.6	7.1	.7	.6	.0	1.0	.0	93.1
SW	1.2	.1	.5	.0	.0	.0	.0	1.8	1.4	1.7	.7	.0	1.2	.0	93.5
W	.0	2.1	.5	.0	.0	.0	.0	2.6	3.1	1.0	.0	.0	.9	.0	92.3
NW	1.7	3.1	1.3	.0	.0	.0	.0	8.1	.3	2.7	2.7	.0	.0	.0	86.2
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	1.0	1.9	.0	.0	.0	.0	.0	2.9	1.4	2.9	.0	.0	5.2	.0	87.6
TOT PCT	1.4	1.3	.6	.0	.0	.0	.0	3.3	1.8	1.4	1.4	.0	1.6	.0	90.7
TOT OBS:	1672														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							NO SIG WEA
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG SNOW	
00003	.5	.9	.0	.0	.0	.0	.0	1.4	.9	1.4	1.1	.0	1.1	.0	94.0
06009	1.5	.9	1.5	.0	.0	.0	.0	3.9	1.8	3.3	3.0	.0	2.4	.0	85.9
12015	2.6	1.7	.6	.0	.0	.0	.0	4.9	3.2	1.3	.9	.0	1.5	.0	88.5
18021	.8	1.6	.4	.0	.0	.0	.0	2.7	1.6	.0	1.2	.0	1.6	.0	93.0
TOT PCT	1.3	1.3	.6	.0	.0	.0	.0	3.2	1.9	1.3	1.4	.0	1.6	.0	90.7
TOT OBS:	1750														

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)						
	0-3	4-10	11-21	22-33	34-47	48+	00				03	06	09	12	15	18	21
N	1.5	3.0	.5	.0	.0	.0	4.9	5.8	4.2	3.2	4.3	6.5	3.2	7.3	6.0	9.3	
NE	1.1	3.4	.5	.0	.0	.0	5.1	6.1	2.8	23.7	3.8	7.8	4.7	15.9	5.2	5.6	
E	1.1	3.0	.1	.0	.0	.0	4.3	5.1	1.8	9.0	4.5	8.0	3.9	5.5	5.1	5.4	
SE	1.6	7.6	.7	.0	.0	.0	9.9	6.3	6.7	10.9	7.7	7.6	11.8	16.4	13.5	3.8	
S	4.7	14.5	2.9	.1	.0	.0	22.2	6.7	15.2	11.5	23.8	22.3	33.0	15.0	22.6	7.1	
SW	6.6	16.6	1.5	.1	.0	.0	24.8	5.8	32.8	21.2	26.5	24.8	20.6	16.8	20.7	28.8	
W	3.2	7.5	.5	.0	.0	.0	11.2	5.4	22.4	7.7	8.2	5.0	4.9	11.4	8.8	18.7	
NW	1.2	3.2	.2	.0	.0	.0	4.6	5.8	6.0	2.6	5.0	1.3	2.7	4.5	4.3	9.5	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	13.1						13.1	.0	8.2	10.3	16.3	16.8	15.2	7.3	13.7	11.9	
TOT OBS	799	1375	162	5	0	0	2341		502	39	393	119	492	55	615	126	
TOT PCT	34.1	58.7	6.9	.2	.0	.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)					TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)				
	0-6	7-16	17-27	28-40	41+				00	03	06	12	18
N	3.2	1.7	.0	.0	.0				4.2	4.8	3.6	6.6	
NE	3.3	1.8	.0	.0	.0				4.3	4.7	5.9	5.3	
E	3.4	.9	.0	.0	.0				4.3	5.1	2.3	4.1	5.2
SE	6.1	3.7	.1	.0	.0				9.9	6.3	7.0	12.2	11.8
S	12.6	9.3	.3	.0	.0				22.2	6.7	14.9	23.4	20.0
SW	16.4	8.2	.1	.1	.0				31.9	5.8	26.1	20.2	22.1
W	8.1	3.0	.1	.0	.0				11.2	5.4	21.3	7.5	10.5
NW	2.9	1.7	.0	.0	.0				4.6	5.8	5.8	4.1	2.9
VAR	.0	.0	.0	.0	.0				.0	.0	.0	.0	.0
CALM	13.1								13.1	.0	8.3	16.4	14.4
TOT OBS	1618	709	12	2	0	2341			5.2		541	512	547
TOT PCT	69.1	30.3	.5	.1	.0				100.0		100.0	100.0	100.0

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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	WIND SPEED (KNOTS)						MEAN	PCT FREQ	TOTAL OBS
		1-3	4-10	11-21	22-33	34-47	48+			
0003	8.3	21.3	63.8	6.7	.0	.0	.0	5.4	100.0	541
0609	16.4	18.4	58.0	6.8	.4	.0	.0	5.2	100.0	512
1215	14.4	21.6	56.9	6.9	.2	.0	.0	5.1	100.0	547
1821	13.4	22.3	57.0	7.2	.3	.0	.0	5.2	100.0	741
TOT	307	492	1375	162	5	0	0	5.2		2341
PCT	13.1	21.0	58.7	6.9	.2	.0	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBS	TOTAL OBS	MEAN CLOUD COVER
N	.4	.7	1.4	1.6		6.0
NE	.4	.4	.8	.8		5.4
E	1.0	.8	1.3	.0		4.9
SE	3.4	1.6	2.5	1.0		4.1
S	4.9	4.9	9.4	5.8		5.1
SW	5.4	5.0	9.8	6.1		5.0
W	2.3	1.9	4.7	2.2		5.0
NW	.0	.6	2.0	.7		5.3
VAR	.0	.0	.0	.0		5.0
CALM	2.8	2.1	6.0	2.7		5.0
TOT OBS	254	215	452	272	1193	
TOT PCT	21.3	18.0	37.9	22.8	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8)
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

	000	100	300	600	1000	2000	3500	5000	6500	8000+	NH <5/8 ANY HGT	TOTAL OBS
	149	299	599	999	1999	3499	4999	6499	7999			
N	.0	.0	.3	.4	.4	.5	.3	.0	.0	.1	2.1	
NE	.0	.0	.0	.4	.5	.3	.0	.0	.1	.1	1.4	
E	.1	.1	.0	.3	.4	.4	.3	.0	.0	.2	2.4	
SE	.0	.0	.2	.2	1.3	.7	.1	.0	.2	.2	6.5	
S	.0	.1	.2	1.9	3.8	1.5	1.0	.3	1.0	1.3	14.1	
SW	.0	.1	.3	1.9	2.0	1.6	.9	.5	1.0	1.4	16.6	
W	.0	.1	.1	.7	1.3	.4	.4	.2	.1	.3	7.5	
NW	.0	.0	.1	.1	.6	.4	.0	.0	.1	.0	2.6	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.0	.0	.8	1.8	.3	.6	.3	.5	.5	8.8	
TOT OBS	1	4	13	76	144	73	45	16	34	48	739	1193
TOT PCT	.1	.3	1.1	6.4	12.1	6.1	3.8	1.3	2.8	4.0	61.9	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE
OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)							
	>10	>5	>2	>1	>1/2	>1/4	>50YD	>0
>6500	6.3	6.7	6.7	6.7	6.7	6.7	6.7	6.7
>5000	7.5	8.0	8.0	8.0	8.0	8.0	8.0	8.0
>3500	10.9	11.7	11.7	11.7	11.7	11.7	11.7	11.7
>2000	16.4	18.2	18.2	18.2	18.2	18.2	18.2	18.2
>1000	26.9	29.7	29.9	29.9	29.9	29.9	29.9	29.9
>600	32.1	35.6	36.0	36.0	36.0	36.0	36.0	36.0
>300	32.9	36.5	36.9	37.0	37.0	37.0	37.0	37.0
>150	33.0	36.8	37.3	37.3	37.3	37.3	37.3	37.3
>0	33.0	36.8	37.3	37.4	37.4	37.4	37.4	37.4
TOTAL	411	438	465	466	466	466	466	466

TOTAL NUMBER OF OBS: 1245

PCT FREQ NH <5/8: 62.6

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

	0	1	2	3	4	5	6	7	8	OBS	TOTAL OBS
	14.2	15.5	14.5	12.3	6.4	7.0	9.0	7.7	13.3	.1	1328

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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1<2	PCP	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	
	NO PCP	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.1	
	TOT %	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.1	
2<5	PCP	.1	.0	.1	.1	*	*	.0	.1	.0	.0	.4	
	NO PCP	.0	.1	.1	.0	.0	.1	.1	.1	.0	.0	.4	
	TOT %	.1	.1	.1	.1	*	.1	.1	.2	.0	.0	.8	
5<10	PCP	.2	.1	.1	.1	.2	.4	.2	*	.0	.1	1.3	
	NO PCP	1.0	1.6	.9	1.5	2.7	2.7	.8	.6	.0	1.5	13.2	
	TOT %	1.2	1.7	1.0	1.5	2.9	3.0	1.0	.6	.0	1.6	14.6	
10+	PCP	*	.2	.1	.2	.4	.1	.1	.3	.0	.3	1.6	
	NO PCP	2.9	2.3	2.9	4.1	20.0	22.2	10.3	3.4	.0	10.8	83.0	
	TOT %	3.0	2.5	3.0	4.3	20.4	22.3	10.4	3.6	.0	11.1	84.5	
TOT OBS													1663
TOT PCT		4.3	4.3	4.1	9.9	23.3	25.4	11.5	4.5	.0	12.6	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.1	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.1	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1	
1<2	0-3	.1	.0	.0	.0	.0	.0	.0	.0	.0	.2	.2	
	4-10	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.1	
	11-21	*	*	.0	.0	.0	.0	.0	.0	.0	.0	.1	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.1	.1	.0	.0	.0	.0	.0	.0	.0	.2	.4	
2<5	0-3	.0	.0	.0	.0	.0	.1	.0	.1	.0	.2	.4	
	4-10	.1	.2	.0	.1	.1	.1	.1	.2	.0	.0	.7	
	11-21	.1	.1	.1	.0	*	.1	.0	.0	.0	.0	.3	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.1	.2	.1	.1	.1	.3	.1	.3	.0	.2	1.5	
5<10	0-3	.4	.3	.3	.3	.7	.8	.4	.2	.0	1.6	4.9	
	4-10	.7	1.2	.6	.9	1.8	1.9	.7	.4	.0		8.2	
	11-21	.1	*	*	.1	.4	.4	*	*	.0		1.2	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	1.2	1.5	1.0	1.4	2.9	3.1	1.1	.7	.0	1.6	14.2	
10+	0-3	1.0	.6	.7	1.3	4.2	5.6	2.9	.9	.0	11.0	28.3	
	4-10	2.0	1.5	2.1	5.9	12.9	15.5	7.2	2.6	.0		49.8	
	11-21	.2	.4	*	.4	2.7	1.2	.4	.2	.0		5.5	
	22+	.0	.0	.0	.0	.1	.1	.0	.0	.0	.0	.2	
	TOT %	3.3	2.5	2.8	7.7	19.9	22.5	10.5	3.7	.0	11.0	83.8	
TOT OBS													1923
TOT PCT		4.7	4.3	3.9	9.1	22.9	25.9	11.7	4.6	.0	13.0	100.0	

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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NM >4/8) AND
OCCURRENCE OF NM <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NM <5/8 ANY HGT	TOTAL OBS
00003	.0	.3	.9	3.4	9.2	4.3	3.1	1.2	3.4	2.1	27.9	72.1	326
06009	.0	.4	1.3	6.8	18.1	9.7	3.4	.8	.8	5.5	46.8	53.2	237
12015	.3	.6	1.4	9.4	14.5	7.4	4.3	2.0	4.0	3.7	47.4	52.6	352
18021	.0	.0	.5	4.6	5.9	4.4	3.6	.8	1.8	4.1	25.7	74.3	369
TOT	1	4	13	78	147	80	47	16	34	49	469	835	1304
PCT	.1	.3	1.0	6.0	11.3	6.1	3.6	1.2	2.6	3.8	36.0	64.0	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.0	.0	.2	1.2	14.6	84.0	481
06009	.0	.2	.9	2.3	19.2	77.4	443
12015	.2	.0	.2	2.0	11.2	86.4	492
18021	.0	.0	.2	.3	12.8	86.6	584
TOT	1	1	7	28	285	1678	2000
PCT	.1	.1	.4	1.4	14.3	83.9	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR
CEILING HGT (FEET, NM >4/8), BY HOUR

HOUR (GMT)	<150 <500	<600 <1	<1000 <5	1000+ AND 5+	NM <5/8 AND 5+	TOTAL OBS
00003	.0	1.3	4.5	24.4	71.1	308
06009	.0	1.8	9.3	40.3	50.4	226
12015	.3	2.3	11.9	36.3	51.7	344
18021	.0	.3	5.7	21.5	72.8	367
TOT	1	18	97	370	778	1245
PCT	.1	1.4	7.8	29.7	62.5	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
90/94	.0	.0	.0	.0	.0	.1	.1	.0	3	.2
85/89	.0	.0	.0	.2	.4	1.4	.3	.1	36	2.4
80/84	.0	.0	.0	.1	1.6	12.3	11.3	1.9	411	27.2
75/79	.0	.0	.0	.3	9.3	32.7	14.2	.8	854	56.6
70/74	.0	.0	.0	.1	.0	.4	6.0	7.0	203	13.4
65/69	.0	.0	.0	.0	.0	.0	.1	.1	3	.2
TOTAL	0	0	0	6	35	354	764	251	1510	100.0
PCT	.0	.0	.0	.4	2.3	23.4	50.6	23.2		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
90/94	.0	.1	.0	.1	.0	.0	.0	.0	.0	.1
85/89	.4	.2	.0	.3	.3	.3	.2	.2	.0	.5
80/84	1.8	1.5	1.7	3.3	3.7	5.3	4.4	1.7	.0	3.8
75/79	2.4	2.4	2.7	5.3	14.2	15.3	5.8	2.2	.0	6.3
70/74	.1	.0	.3	1.2	4.9	3.6	.6	.2	.0	2.5
65/69	.0	.0	.0	.0	.1	.1	.0	.0	.0	.0
TOTAL	4.7	4.1	4.7	10.2	23.2	24.5	11.1	4.4	.0	13.1

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	89	84	82	78	73	71	62	78.0	565
06009	88	82	80	77	72	71	67	77.1	345
12015	90	83	81	77	72	70	66	77.0	563
18021	90	88	86	80	75	73	69	80.1	748
TOT	90	87	83	78	73	71	62	78.2	2421

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	.8	1.8	19.0	58.9	19.5	84	389
06009	.0	.0	.3	9.7	53.2	36.8	87	310
12015	.0	.2	.5	12.3	55.1	31.9	86	430
18021	.0	.4	6.2	45.0	36.7	11.7	80	471
TOT	0	6	39	369	804	382	84	1600

PERIOD: (PRIMARY) 1933-1977
(OVER-ALL) 1868-1977

MARCH

AREA 0034 GUAYAQUIL
1.95 81.8W

TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FDG (WITHOUT PRECIPITATION)
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIP	65 68	69 72	73 76	77 80	81 84	85 88	89 92	TOT	W FDG	WD FDG
23/25	.0	.0	.0	.0	.0	.1	.0	1	.0	.1
14/16	.0	.0	.0	.0	.1	.0	.1	2	.0	.1
11/13	.0	.0	.0	.1	.0	.1	.0	2	.0	.1
9/10	.0	.0	.1	.1	.1	.1	.0	4	.0	.3
7/8	.0	.0	.3	.3	.4	.4	.0	20	.0	1.3
6	.0	.1	.1	.6	.8	.2	.1	29	.0	1.9
5	.0	.1	.2	.8	.8	.6	.0	40	.0	2.6
4	.0	.2	.5	1.0	1.0	.5	.0	49	.1	3.1
3	.0	.1	.8	2.0	1.2	.4	.0	69	.0	4.5
2	.0	.5	1.4	3.2	1.9	.0	.0	108	.1	6.9
1	.0	.4	3.6	5.1	2.4	.1	.0	178	.4	11.1
0	.0	1.0	3.8	9.1	4.1	.1	.0	279	.4	17.6
-1	.1	.7	5.0	9.6	2.3	.0	.0	273	.4	17.2
-2	.0	.3	3.5	7.9	1.2	.0	.0	198	.2	12.6
-3	.0	.3	2.4	5.5	.8	.0	.0	139	.1	8.9
-4	.0	.1	1.3	3.4	.1	.0	.0	77	.0	5.0
-5	.0	.2	.8	1.6	.2	.0	.0	44	.0	2.8
-6	.0	.1	.8	.4	.0	.0	.0	19	.1	1.2
-7/-8	.0	.1	.3	.4	.1	.0	.0	13	.0	.8
-9/-10	.0	.1	.1	.1	.0	.0	.0	4	.0	.3
TOTAL	1	65	384	791	269	36	2	1548	25	1523
PCT	.1	4.2	24.8	51.2	17.4	2.3	.1	100.0	1.6	98.4

PERIOD: (OVER-ALL) 1963-1977

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.6	.4	.0	.0	.0	.0	1.1	.*	.0	.0	.0	.0	.0	.*
1-2	.0	1.3	.2	.0	.0	.0	1.5	.2	1.3	.0	.0	.0	.0	1.4
3-4	.0	.7	.1	.0	.0	.0	.8	.0	.2	.4	.0	.0	.0	.6
5-6	.0	.2	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.6	2.6	.3	.0	.0	.0	3.5	.2	1.5	.4	.0	.0	.0	2.1

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.3	.4	.1	.0	.0	.0	.8	.*	1.1	.*	.0	.0	.0	1.2
1-2	.2	1.2	.2	.0	.0	.0	1.5	.1	5.1	.3	.0	.0	.0	5.5
3-4	.0	.6	.0	.0	.0	.0	.6	.1	.6	.8	.0	.0	.0	1.4
5-6	.0	.0	.1	.0	.0	.0	.1	.0	.2	.2	.0	.0	.0	.4
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.2
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.4	2.2	.4	.0	.0	.0	3.0	.2	7.2	1.3	.0	.0	.0	8.7

PERIOD: (OVER-ALL) 1963-1977

MARCH

AREA 0034 GUAYAQUIL
1.95 81.8W

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	1.3	2.6	.0	.0	.0	.0	3.9	2.6	3.8	.0	.0	.0	.0	6.4
1-2	2.9	9.3	1.3	.0	.0	.0	12.5	1.8	11.9	.8	.0	.0	.0	14.5
3-4	1.4	4.2	2.0	.0	.0	.0	7.5	1.0	4.7	1.2	.0	.0	.0	7.0
5-6	.0	.4	1.3	.2	.0	.0	1.9	.0	.7	.3	.0	.0	.0	1.0
7	.0	.0	.7	.0	.0	.0	.2	.2	.1	.0	.0	.0	.0	.2
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	5.5	16.5	4.8	.2	.0	.0	27.0	5.6	21.3	2.4	.0	.0	.0	29.3

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	1.2	2.6	.0	.0	.0	.0	3.8	.9	.8	.0	.0	.0	.0	1.8	
1-2	.6	3.7	.7	.0	.0	.0	4.4	.2	1.6	.0	.0	.0	.0	1.8	
3-4	.4	1.0	.0	.0	.0	.0	1.4	.0	.3	.0	.0	.0	.0	.3	
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.2	
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	2.2	7.3	.2	.0	.0	.0	9.6	1.1	2.9	.0	.0	.0	.0	4.0	87.2

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT DBS
<1	20.3	11.7	.2	.0	.0	.0	32.2	
1-2	6.6	34.5	2.8	.0	.0	.0	43.9	
3-4	3.1	12.0	4.3	.0	.0	.0	19.4	
5-6	.2	1.5	1.8	.2	.0	.0	3.7	
7	.2	.0	.3	.0	.0	.0	.5	
8-9	.0	.3	.0	.0	.0	.0	.3	
10-11	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	30.4	60.1	9.4	.2	.0	.0	100.0	649

PERIOD: (OVER-ALL) 1949-1977

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	7.3	16.1	14.7	2.5	.5	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	447	2
6-7	.2	2.4	8.5	7.2	.6	.3	.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	214	4
8-9	.0	.9	3.6	2.7	1.1	.0	.5	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	96	4
10-11	.0	.8	2.1	2.3	1.3	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	74	5
12-13	.0	.0	1.6	.7	.4	.3	.2	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	35	5
>13	.0	.0	.0	.4	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	5	5
INDET	10.2	5.6	2.2	1.0	.2	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	209	1
TOTAL	191	280	354	182	45	11	15	1	1	0	0	0	0	0	0	0	0	0	0	1080	3
PCT	17.7	25.9	32.8	16.9	4.2	1.0	1.4	.1	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	

PERIOD: (PRIMARY) 1932-1977
(OVER-ALL) 1872-1977

APRIL

AREA 0034 GUAYAGUIL
1.95 81.7W

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

PRECIPITATION TYPE										OTHER WEATHER PHENOMENA					
WND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST SNOW	NO SIG WEA
N	2.0	.0	.0	.0	.0	.0	.0	2.0	.0	.0	.0	.0	4.1	.0	93.9
NE	3.0	.0	.0	.0	.0	.0	.0	3.0	.0	.0	.0	.0	.0	.0	97.0
E	1.6	.0	.0	.0	.0	.0	.0	1.6	2.1	1.6	4.1	.0	.0	.0	90.7
SE	.7	.6	.0	.0	.0	.0	.0	1.3	1.8	3.1	3.3	.0	.3	.0	90.1
S	1.1	.7	.0	.0	.0	.0	.0	1.8	1.0	.4	1.4	.0	3.5	.0	92.0
SW	1.1	.2	.4	.0	.0	.0	.2	2.0	1.1	.7	.6	.0	1.6	.0	94.2
W	.0	.0	.0	.0	.0	.0	.0	.0	.5	1.1	.0	.0	2.0	.0	96.4
NW	3.1	.0	.0	.0	.0	.0	.0	3.1	.8	.0	.0	.0	.8	.0	95.3
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.9	.9	.0	.0	.0	.0	.0	1.7	2.6	.0	1.7	.0	4.3	.0	89.6
TOT PCT	1.1														
TOT OBS:	1511	.4	.1	.0	.0	.0	.1	1.7	1.2	.9	1.3	.0	2.3	.0	92.9

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE								OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST SNOW	NO SIG WEA	
00003	.5	.3	.0	.0	.0	.0	.0	.8	.3	1.3	1.6	.0	1.6	.0	94.4	
06009	1.3	.7	1.0	.0	.0	.0	.0	3.0	1.0	2.6	2.0	.0	2.0	.0	89.4	
12013	2.5	.9	.0	.0	.0	.0	.0	3.4	2.7	.0	1.3	.0	2.0	.0	90.6	
18021	.2	.4	.0	.0	.0	.0	.2	.9	.4	.2	.9	.0	2.9	.0	94.9	
TOT PCT	1.1	.6	.2	.0	.0	.0	.1	2.0	1.1	.9	1.4	.0	2.2	.0	92.5	
TOT OBS:	1572															

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							48+	TOTAL QRS	PCT FREQ	MEAN SPD	HOUR (GMT)						
	0-3	4-10	11-21	22-33	34-47	00	03					06	09	12	15	18	21	
N	.6	1.1	.0	.0	.0	.0	1.6	4.7	1.6	.0	1.4	.9	1.4	.0	2.3	1.9		
NE	.8	.9	.1	.0	.0	.0	1.8	4.6	.9	.0	1.1	3.5	3.2	.0	1.7	1.9		
E	.7	2.1	.1	.0	.0	.0	2.9	5.9	1.6	10.3	2.8	3.1	3.5	13.6	2.8	.5		
SE	1.7	7.3	1.6	.0	.0	.0	10.7	7.3	7.1	36.2	10.2	12.8	9.0	32.6	10.9	15.0		
S	5.2	21.1	5.6	.0	.0	.0	31.9	7.5	26.5	29.3	33.1	28.1	38.8	27.7	31.5	27.5		
SW	4.6	21.2	3.6	.1	.0	.0	29.5	7.1	37.5	15.5	30.8	27.0	27.1	19.6	27.5	25.9		
W	2.4	7.7	.6	.0	.0	.0	10.7	5.7	18.8	5.2	8.2	11.3	2.7	2.2	12.5	18.1		
NW	.7	1.9	.1	.0	.0	.0	2.6	5.4	3.5	.0	2.3	2.7	1.8	.0	3.0	3.7		
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
CALM	8.1						8.1	.0	2.6	3.4	10.1	10.6	12.4	4.3	7.8	5.6		
TOT OBS	520	1330	246	3	0	0	2099		6.3	420	29	347	113	474	46	562		
TOT PCT	24.8	63.4	11.7	.1	.0	.0		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0		

TABLE 3A

WIND DIR	0-6	WIND SPEED (KNOTS)				41+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)				
		7-16	17-27	28-40	00 03					06 09	12 15	18 21		
N	1.3	.4	.0	.0	.0	1.6	4.7	1.5	1.3	1.3	2.2			
NE	1.4	.4	.0	.0	.0	1.8	4.6	.8	1.7	2.9	1.8			
E	2.0	.9	.1	.0	.0	2.9	5.9	2.2	2.9	4.4	2.4			
SE	5.1	5.4	.2	.0	.0	10.7	7.3	9.0	10.9	11.1	11.3			
S	15.2	15.8	.9	.0	.0	31.9	7.5	26.7	31.8	37.8	30.9			
SW	14.7	14.3	.4	.0	.0	29.5	7.1	36.1	29.8	26.4	27.3			
W	7.6	3.1	.0	.0	.0	10.7	5.7	17.9	9.0	2.7	13.4			
NW	1.8	.8	.0	.0	.0	2.6	5.4	3.2	2.4	1.7	3.1			
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0			
CALM	8.1					8.1	.0	2.7	10.2	11.7	7.5			
TOT OBS	1202	863	33	1	0	2099	6.3	449	460	520	670			
TOT PCT	57.3	41.1	1.6	*	0		100.0	100.0	100.0	100.0	100.0			

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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

MOON	CALM	1-3	4-10	WIND SPEED (KNOTS)				48+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47					
00603	2.7	10.5	66.8	14.0	.0	.0	.0	.0	6.7	100.0	449
06609	10.2	11.1	64.1	14.3	.2	.0	.0	.0	6.8	100.0	460
12615	11.7	19.6	57.5	11.0	.2	.0	.0	.0	6.0	100.0	520
18621	7.5	18.4	65.1	9.0	.1	.0	.0	.0	6.1	100.0	670
TOT	170	350	1390	240	3	0	0	0	6.3		2099
PCT	8.1	16.7	63.4	11.7	.1	.0	.0	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	.3	.2	.8	.4	5.3	
NE	.2	*	1.2	.3	5.9	
E	.8	.4	1.2	.5	4.7	
SE	1.9	2.6	2.7	1.5	4.3	
S	9.0	6.7	12.2	4.7	4.4	
SW	8.4	6.2	12.1	4.7	4.5	
W	2.9	2.3	3.5	1.4	4.4	
NW	.1	.4	1.2	.4	5.5	
VAR	.0	.0	.0	.0	.0	
CALM	1.8	1.2	4.1	1.3	5.0	
TOT OBS	271	215	415	164	1065	4.6
TOT PCT	25.4	20.2	39.0	15.4	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8)
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

	000 149	150 299	300 599	400 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH <5/8 ANY HGT	TOTAL OBS
N	.0	.0	.0	.0	.3	.0	.1	.1	.0	.1	1.2	
NE	.0	.0	*	*	.4	.0	.1	.0	*	.1	.9	
E	.0	.0	.1	.1	.4	.2	.0	.1	.1	.1	1.8	
SE	.0	.1	.5	.2	1.0	.5	.4	.0	.1	*	5.9	
S	.0	.2	.4	1.4	2.1	1.4	.5	.5	.6	1.3	24.2	
SW	.0	.0	.4	1.6	3.8	1.7	.3	.6	.4	1.1	21.5	
W	.0	.0	.0	.4	1.0	.2	.2	.1	.0	.4	8.0	
NW	.0	.3	.0	.1	.4	.1	*	.0	.0	*	1.5	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.0	.1	.6	.7	.5	.4	.0	.3	.3	5.7	
TOT OBS	0	3	16	48	107	48	21	14	17	37	754	1065
TOT PCT	.0	.3	1.5	4.5	10.0	4.5	2.0	1.3	1.6	3.5	70.8	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE
OF CEILING HEIGHT (NH >4/8) AND VSBY (NN)

CEILING (FEET)	VSBY (NM)				OR >1	OR >1/2	OR >1/4	OR >50YD	OR >0
	OR >10	OR >5	OR >2	OR >1					
NK >6500	3.7	4.7	4.9	4.9	4.9	4.9	4.9	4.9	4.9
NK >5000	4.9	6.0	6.2	6.2	6.2	6.2	6.2	6.2	6.2
NK >3500	6.6	7.9	8.1	8.1	8.1	8.1	8.1	8.1	8.1
NK >2000	10.1	12.4	12.6	12.6	12.6	12.6	12.6	12.6	12.6
NK >1000	18.7	22.3	22.6	22.6	22.6	22.6	22.6	22.6	22.6
NK >600	22.4	26.7	26.9	26.9	26.9	26.9	26.9	26.9	26.9
NK >300	23.7	28.1	28.4	28.4	28.4	28.4	28.4	28.4	28.4
NK >150	23.9	28.4	28.7	28.7	28.7	28.7	28.7	28.7	28.7
NK >0	23.9	28.4	28.7	28.7	28.7	28.7	28.7	28.7	28.7
TOTAL	263	312	315	315	315	315	315	315	315

TOTAL NUMBER OF OBSI 1099

PCT FREQ NH <5/8 71.3

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

	0	1	2	3	4	5	6	7	8 OBSCD	TOTAL OBS
	17.7	15.8	15.3	11.8	9.3	6.2	6.9	7.3	9.7	1176

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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1<2	PCP	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1	
2<5	PCP	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1	
	NO PCP	.0	.0	.0	.1	.2	.1	.0	.0	.0	.3	.7	
	TOT %	.0	.0	.0	.1	.2	.2	.0	.0	.0	.3	.7	
5<10	PCP	*	*	*	.0	.1	.1	.0	.0	.0	.1	.5	
	NO PCP	.3	.2	.8	2.8	4.4	3.7	1.1	.7	.0	1.1	15.1	
	TOT %	.3	.2	.8	2.8	4.4	3.8	1.1	.7	.0	1.3	15.5	
10+	PCP	.0	.0	.0	.1	.5	.3	.0	.1	.0	.0	1.1	
	NO PCP	1.3	1.4	2.3	8.1	26.8	26.1	9.1	1.4	.0	6.1	82.6	
	TOT %	1.3	1.4	2.3	8.2	27.3	26.4	9.1	1.5	.0	6.1	83.7	
TOT OBS													1507
TOT PCT													
		1.6	1.7	3.2	11.1	32.0	30.5	10.2	2.1	.0	7.6	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	11-21	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1	.1
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1	.1
2<5	0-3	.0	*	*	.0	.0	.1	.0	.0	.0	.2	.3	.3
	4-10	.0	.0	.0	.1	.2	.2	.0	.0	.0	.0	.5	.5
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	*	*	.1	.2	.3	.0	.0	.0	.2	.9	.9
5<10	0-3	.1	.0	.3	.9	.7	.4	.3	.1	.0	1.1	3.9	3.9
	4-10	.2	.3	.4	1.5	2.8	2.8	.7	.4	.0	.0	9.0	9.0
	11-21	.0	*	*	.2	1.1	.5	.1	*	.0	.0	2.0	2.0
	22+	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1	.1
	TOT %	.3	.3	.8	2.5	4.6	3.8	1.1	.6	.0	1.1	15.0	15.0
10+	0-3	.4	.8	.4	.9	4.0	4.3	1.8	.4	.0	6.1	19.2	19.2
	4-10	1.0	.7	1.5	5.6	17.6	19.7	7.4	1.4	.0	.0	55.0	55.0
	11-21	.0	.1	.1	1.2	4.6	3.2	.6	.1	.0	.0	9.9	9.9
	22+	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1	.1
	TOT %	1.5	1.5	2.0	7.7	26.2	27.2	9.8	2.0	.0	6.1	84.1	84.1
TOT OBS													1730
TOT PCT													
		1.7	1.9	2.8	10.3	31.1	31.3	10.9	2.5	.0	7.5	100.0	

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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NM >4/8) AND
OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY MGT	TOTAL OBS
00603	.0	.4	1.1	3.4	4.9	2.6	2.3	1.1	1.1	3.8	20.7	79.3	266
06609	.0	.5	1.8	3.7	17.9	4.6	2.3	2.3	1.8	2.3	37.2	62.8	218
12615	.0	.3	2.5	7.1	12.6	6.4	2.8	.9	2.1	4.0	38.7	61.3	326
18621	.0	.0	.3	2.4	5.2	3.4	.3	.9	.9	2.8	16.2	83.8	327
TOT PCT	0 .0	3 .3	16 1.4	48 4.2	110 9.7	49 4.3	21 1.8	14 1.2	17 1.5	37 3.3	315 27.7	822 72.3	1137 100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00603	.0	.0	.0	1.0	14.5	84.5	406
06609	.0	.0	.0	2.0	18.2	79.8	396
12615	.0	.0	.2	.4	16.8	82.6	470
18621	.0	.0	.0	.2	13.3	86.5	518
TOT PCT	0 .0	0 .0	1 .1	15 .8	279 15.6	1495 83.5	1790 100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR
CEILING HGT (FEET, NM >4/8) BY HOUR

HOUR (GMT)	<150 <5000	<600 <1	<1000 <5	1000+ AND 5+	NH <5/8 AND 5+	TOTAL OBS
00603	.0	1.6	5.9	16.1	78.0	255
06609	.0	2.4	8.1	31.8	60.2	211
12615	.0	2.8	10.4	29.3	60.3	317
18621	.0	.3	3.2	13.9	82.9	316
TOT PCT	0 .0	19 1.7	75 6.8	245 22.3	779 70.9	1099 100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
90/94	.0	.0	.1	.1	.0	.0	.0	.0	2	.2
85/89	.0	.0	.1	.0	.2	.2	.3	.5	16	1.2
80/84	.0	.0	.0	.2	.9	8.2	5.8	2.5	230	17.6
75/79	.0	.0	.0	.0	.7	10.3	30.5	9.0	659	50.5
70/74	.0	.0	.0	.0	.0	1.0	15.7	11.7	371	28.4
65/69	.0	.0	.0	.0	.0	.0	.8	1.2	27	2.1
TOTAL	0	0	2	3	23	257	694	326	1305	100.0
PCT	.0	.0	.2	.2	1.8	19.7	53.2	25.0		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.1	.1	.0	.0	.0	.0	.0	.0	.0	.0
.0	.0	.0	.2	.2	.6	.1	.1	.0	.1
.6	.9	.7	1.9	5.1	4.1	2.0	.7	.0	1.5
.5	.6	1.9	5.1	15.1	15.8	5.9	1.0	.0	4.6
.4	*	.2	3.2	10.8	8.9	1.9	.5	.0	2.5
*	*	.0	.1	.9	.7	.1	.0	.0	.2
1.5	1.7	2.9	10.6	32.1	30.0	10.0	2.3	.0	8.8

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00603	87	82	81	77	71	68	67	76.5	463
06609	83	82	80	75	70	66	65	75.2	481
12615	87	84	81	76	70	68	64	75.7	538
18621	92	86	84	79	73	70	64	78.6	675
TOT	92	85	82	77	71	68	64	76.6	2157

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-39	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00603	.0	.0	1.8	18.5	51.8	27.9	85	330
06609	.0	.0	.7	6.2	56.4	36.6	88	273
12615	.0	.0	.5	10.2	58.9	30.4	86	382
18621	.0	1.5	4.1	39.8	44.5	10.0	80	389
TOT	0	6	26	272	723	347	85	1374

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TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	61 64	65 68	69 72	73 76	77 80	81 84	85 88	89 92	TOT	W FOG	WD FOG
17/19	.0	.0	.0	.0	.0	.0	.1	.1	1	.0	.1
14/16	.0	.0	.0	.0	.0	.1	.0	.0	1	.0	.1
11/13	.0	.0	.0	.1	.1	.1	.0	.0	5	.0	.4
9/10	.0	.0	.0	.1	.1	.4	.0	.0	10	.0	.7
7/8	.0	.0	.1	.1	.6	.4	.1	.1	18	.0	1.3
6	.0	.0	.0	.1	.5	.1	.0	.1	12	.0	.9
5	.0	.1	.2	.4	1.1	.3	.3	.1	33	.0	2.4
4	.0	.1	.4	1.0	1.5	1.2	.2	.0	60	.0	4.4
3	.0	.1	.6	1.7	2.2	1.0	.1	.0	77	.1	5.6
2	.0	.4	1.0	2.0	2.4	1.6	.0	.0	103	.0	7.5
1	.0	.1	1.2	4.5	4.6	1.5	.0	.0	161	.3	11.5
0	.1	.3	2.9	5.6	5.6	1.7	.0	.0	220	.2	15.9
-1	.0	.1	2.2	6.5	6.4	1.5	.0	.0	228	.3	16.4
-2	.0	.1	1.3	4.5	5.6	.4	.0	.0	163	.4	11.6
-3	.0	.0	1.0	3.0	4.2	.1	.0	.0	128	.1	9.2
-4	.0	.0	1.0	1.8	1.9	.1	.0	.0	64	.1	4.6
-5	.0	.1	.5	1.7	.9	.1	.0	.0	44	.0	3.2
-6	.0	.0	.1	.8	.4	.0	.0	.0	18	.0	1.3
-7/-8	.0	.1	.1	.6	.3	.0	.0	.0	15	.0	1.1
-9/-10	.0	.0	.2	.1	.1	.0	.0	.0	6	.0	.4
TOTAL	1	21	175	483	529	145	9	4	1367	20	1347
PCT	.1	1.5	12.8	35.3	38.7	10.6	.7	.3	100.0	1.5	98.5

PERIOD: (OVER-ALL) 1963-1977

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	N							PCT	NE							PCT
	1-3	4-10	11-21	22-33	34-47	48+			1-3	4-10	11-21	22-33	34-47	48+		
41	.5	.3	.0	.0	.0	.0	.8	.1	.7	.0	.0	.0	.0	.0	.1	.1
1-2	.1	.3	.0	.0	.0	.0	.4	.2	.7	.0	.0	.0	.0	.0	1.0	.0
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.7	.6	.0	.0	.0	.0	1.2	.3	.8	.0	.0	.0	.0	.0	.0	1.1

HGT	E							PCT	SE							PCT
	1-3	4-10	11-21	22-33	34-47	48+			1-3	4-10	11-21	22-33	34-47	48+		
41	.4	.4	.0	.0	.0	.0	.8	.6	.6	.0	.0	.0	.0	.0	1.2	.0
1-2	.3	1.5	.0	.0	.0	.0	1.8	.5	3.1	.2	.0	.0	.0	.0	3.9	.0
3-4	.0	.2	.1	.0	.0	.0	.4	.0	.8	.7	.0	.0	.0	.0	1.5	.0
5-6	.0	.1	.0	.0	.0	.0	.1	.0	.6	.3	.0	.0	.0	.0	.4	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.2	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.7	2.3	.1	.0	.0	.0	3.2	1.1	4.6	1.4	.0	.0	.0	.0	.0	7.1

PERIOD: (OVER-ALL) 1963-1977

APRIL

AREA 0034 GUAYAQUIL
1.95 81.7W

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

								SW								
HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT		
<1	3.4	4.5	.2	.0	.0	.0	8.1	2.1	0.9	.0	.0	.0	.0	9.0		
1-2	.7	11.6	1.3	.0	.0	.0	13.8	2.2	10.8	1.7	.0	.0	.0	14.8		
3-4	.1	6.9	2.3	.0	.0	.0	4.3	.3	4.9	1.5	.0	.0	.0	6.7		
5-6	.0	.7	1.8	.0	.0	.0	4.5	.2	.7	.5	.2	.0	.0	1.6		
7	.2	.0	.2	.0	.0	.0	.3	.0	.2	.2	.0	.0	.0	.3		
8-9	.0	.0	.2	.0	.0	.0	.2	.2	.0	.0	.0	.0	.0	.2		
10-11	.0	.0	.2	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0		
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
TOT PCT	4.6	23.8	6.0	.0	.0	.0	34.5	5.0	23.5	3.9	.2	.0	.0	32.6		

								NW								
HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT	
<1	1.1	4.0	.0	.0	.0	.0	5.1	.7	.7	.0	.0	.0	.0	1.5		
1-2	.3	2.3	.4	.0	.0	.0	3.0	.0	.4	.0	.0	.0	.0	.4		
3-4	.3	1.2	.4	.0	.0	.0	1.9	.0	.4	.0	.0	.0	.0	.4		
5-6	.3	.3	.0	.0	.0	.0	.6	.0	.0	.0	.0	.0	.0	.0		
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
TOT PCT	2.0	7.7	.8	.0	.0	.0	10.5	.7	1.5	.0	.0	.0	.0	2.3 92.5		

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT DBS
<1	17.4	16.9	.2	.0	.0	.0	34.4	
1-2	5.1	30.4	3.5	.0	.0	.0	39.0	
3-4	1.0	14.3	4.9	.0	.0	.0	20.2	
5-6	.5	1.9	2.5	.2	.0	.0	5.1	
7	.2	.2	.5	.0	.0	.0	.8	
8-9	.2	.0	.2	.0	.0	.0	.3	
10-11	.0	.0	.2	.0	.0	.0	.2	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	24.3	63.6	12.0	.2	.0	.0	100.0	593

PERIOD: (OVER-ALL) 1949-1977

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	11.9	17.9	13.6	4.1	1.2	.2	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	469	2
6-7	.0	3.1	6.4	6.2	1.5	.2	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	170	4
8-9	.0	1.4	2.6	3.9	1.7	.1	.6	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100	5
10-11	.0	1.6	1.6	1.3	.6	.6	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	35	4
12-13	.0	.0	1.9	.8	.2	.1	.1	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	31	5
>13	.0	.0	.0	.7	.5	.3	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	18	7
1NOET	5.8	2.4	2.4	.7	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	110	1
TOTAL	168	252	272	169	56	13	15	2	2	1	1	0	0	0	0	0	0	0	0	953	3
PCT	17.6	26.4	28.5	17.7	5.9	1.6	1.6	.2	.2	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	100.0	

PERIOD: (PRIMARY) 1931-1977
(OVER-ALL) 1875-1977

MAY

AREA 0034 GUAYAQUIL
1.85 81.7M

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

PRECIPITATION TYPE										OTHER WEATHER PHENOMENA					
WND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THOR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
N	8.1	.0	.0	.0	.0	.0	.0	8.1	.0	.0	10.8	.0	.0	.0	81.1
NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
E	.0	14.9	.0	.0	.0	.0	.0	14.9	.0	4.3	.0	.0	.0	.0	80.9
SE	.0	1.2	.0	.0	.0	.0	.0	1.2	.0	1.7	4.5	.0	.9	.0	91.7
S	.3	.6	.4	.0	.0	.0	.0	1.3	.8	.0	1.1	.0	1.5	.0	95.2
SW	.4	.3	.5	.0	.0	.0	.0	1.2	1.2	.2	.3	.0	1.2	.0	96.0
W	.0	.0	.0	.0	.0	.0	.0	.0	.0	.6	.0	.0	1.4	.0	98.0
NW	1.3	5.0	.0	.0	.0	.0	.0	6.3	.0	.0	.0	.0	.0	.0	93.8
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	5.3	1.8	.0	.0	5.3	.0	87.7
TOT PCT	.3	.6	.3	.0	.0	.0	.0	1.3	1.0	.4	1.0	.0	1.4	.0	94.9
TOT OBS:	1564														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THOR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST BLWG SNOW	NO SIG WEA
00603	.3	.0	.0	.0	.0	.0	.0	.3	1.0	.5	.5	.0	.8	.0	96.9
06609	.6	.6	.9	.0	.0	.0	.0	2.2	1.3	1.3	.6	.0	.9	.0	93.7
12615	.2	.9	.7	.0	.0	.0	.0	1.9	1.4	.0	1.4	.0	1.9	.0	93.5
18621	.2	.9	.0	.0	.0	.0	.0	1.1	.2	.0	1.6	.0	2.0	.0	95.0
TOT PCT	.3	.6	.4	.0	.0	.0	.0	1.3	.9	.4	1.1	.0	1.5	.0	94.8
TOT OBS:	1583														

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)						
	0-3	4-10	11-21	22-33	34-47	48+	00				03	06	09	12	15	18	21
N	.4	.3	*	.0	.0	.0	.0	.7	4.2	.2	.0	1.5	.0	.7	2.1	.9	.0
NE	.3	.3	.0	.0	.0	.0	.0	.6	4.2	.0	.0	.3	3.3	1.0	1.4	.2	.9
E	.3	.6	*	.0	.0	.0	.0	.9	5.3	.6	1.2	1.3	1.4	1.2	2.1	.4	.5
SE	.8	7.6	1.3	.0	.0	.0	.0	9.8	7.5	8.2	25.0	11.3	8.9	8.6	20.8	9.6	9.5
S	2.2	22.2	10.5	.3	.0	.0	.0	35.2	9.4	31.8	42.1	36.4	31.3	38.5	36.1	36.2	25.9
SW	3.0	27.9	12.3	.4	.0	.0	.0	39.5	9.1	44.8	19.5	37.2	42.3	37.1	37.5	38.0	49.1
W	1.2	6.2	1.1	*	.0	.0	.0	8.6	7.2	12.2	9.8	6.6	6.3	5.3	.0	10.0	10.1
NW	.5	.9	*	.0	.0	.0	.0	1.4	5.2	1.2	.0	1.6	.9	.7	.0	1.7	4.1
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	3.4	.0	.0	.0	.0	.0	.0	3.4	.0	1.1	2.4	3.7	5.6	6.8	.0	2.8	.0
TOT OBS	273	1406	574	15	0	0	0	2268	8.4	472	41	380	107	485	36	635	111
TOT PCT	12.0	62.0	25.3	.7	.0	.0	.0	100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WNO DIR	0-6	WIND SPEED (KNOTS)				41+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)				
		7-16	17-27	28-40	00 03					06 09	12 15	18 21		
N	.6	.1	.0	.0	.0		.7	4.2	.1	1.2	.8	.8		
NE	.5	.1	.0	.0	.0		.6	4.2	.0	1.0	1.1	.3		
E	.6	.3	.0	.0	.0		.9	5.3	.6	1.3	1.3	.4		
SE	4.2	5.5	.1	.0	.0		9.8	7.5	9.6	10.8	9.4	9.6		
S	10.1	22.7	2.4	.0	.0		35.2	9.4	32.6	35.3	38.4	34.7		
SW	13.0	24.3	2.3	.0	.0		39.5	9.1	42.8	38.3	37.2	39.6		
W	4.2	4.3	.1	.0	.0		8.6	7.2	12.0	6.5	5.0	10.1		
NW	1.0	.3	*	.0	.0		1.4	5.2	1.1	1.5	.6	2.1		
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0		
CALM	3.4						3.4	.0	1.2	4.1	6.3	2.4		
TOT OBS	851	1305	112	0	0	2268		8.4	513	487	522	746		
TOT PCT	37.5	57.5	4.9	.0	.0		100.0		100.0	100.0	100.0	100.0		

PERIOD: (PRIMARY) 1931-1977
(OVER-ALL) 1875-1977

MAY

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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)				48+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47					
0000	1.2	6.8	66.5	24.4	1.2	.0	.0	.0	8.6	100.0	513
0600	4.1	6.6	62.0	26.3	1.0	.0	.0	.0	8.8	100.0	487
1200	6.3	11.9	58.6	22.8	.4	.0	.0	.0	7.7	100.0	522
1800	2.4	9.0	61.3	27.1	.3	.0	.0	.0	8.6	100.0	746
TOT	77	196	1406	574	15	0	0	0	8.4		2268
PCT	3.4	8.6	62.0	25.3	.7	.0	.0	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
SS	.1	.1	.0	.4		6.0
NE	*	*	.1	*		4.1
E	.1	.1	.1	.3		5.6
SE	3.0	1.5	2.6	1.4		4.1
S	11.2	6.5	11.0	7.5		4.5
SW	11.7	5.8	14.2	9.8		4.8
W	2.5	1.2	2.8	1.4		4.5
NW	.4	.1	.2	*		3.0
VAR	.0	.0	.0	.0		.0
CALM	.5	.7	1.6	.9		5.5
TOT OBS	354	193	391	262	1200	4.6
TOT PCT	29.5	16.1	32.6	21.8	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8)
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

	000	150	300	600	1000	2000	3500	5000	6500	8000+	NH <5/8	TOTAL
	149	299	599	999	1999	3499	4999	6499	7999		ANY HGT	OBS
SS	.1	.0	.1	.1	.1	.0	.0	.0	.0	.0	.2	
NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	
E	.0	.0	.0	.1	.2	.1	.0	.0	.0	.0	.4	
SE	.0	.0	.1	.8	.9	.3	.3	.4	.0	*	5.9	
S	.1	.1	.9	3.1	3.7	2.5	1.4	.9	.3	.4	22.8	
SW	.0	.1	.3	4.8	6.5	3.0	1.2	.3	.4	.9	24.0	
W	.0	.0	.1	.6	1.1	.4	.2	.1	.1	.1	5.1	
NW	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.6	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.0	.2	.4	.8	.3	.0	.0	.0	.2	1.8	
TOT OBS	2	3	19	119	160	80	38	20	11	18	730	1200
TOT PCT	.2	.3	1.6	9.9	13.3	6.7	3.2	1.7	.9	1.5	60.8	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE
OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)			VSBY (NM)			VSBY (NM)			OR >0
	OR >10	OR >5	OR >2	OR >1	OR >1/2	OR >1/4	OR >50YD	OR >0		
NH >6500	2.1	2.4	2.4	2.4	2.4	2.4	2.4	2.4		2.4
NH >5000	3.6	4.0	4.2	4.2	4.2	4.2	4.2	4.2		4.2
NH >3500	6.5	7.3	7.4	7.4	7.4	7.4	7.4	7.4		7.4
NH >2000	12.6	13.8	14.1	14.1	14.1	14.1	14.1	14.1		14.1
NH >1000	23.9	27.1	27.4	27.4	27.4	27.4	27.4	27.4		27.4
NH >600	32.1	36.8	37.2	37.2	37.2	37.2	37.2	37.2		37.2
NH >300	33.3	38.3	38.7	38.7	38.7	38.8	38.8	38.8		38.8
NH >150	33.5	38.6	39.0	39.0	39.0	39.1	39.1	39.1		39.1
OR >0	33.5	38.6	39.1	39.1	39.1	39.1	39.2	39.2		39.2
TOTAL	406	468	473	473	473	474	475	475		475

TOTAL NUMBER OF OBS 1211

PCT FREQ NH <5/8 60.8

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

	0	1	2	3	4	5	6	7	8 OBSCD	TOTAL OBS
	18.5	14.6	11.3	8.0	7.7	5.2	7.2	10.6	16.7	1268

PERIOD: (PRIMARY) 1931-1977
(OVER-ALL) 1875-1977

MAY

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1.85 81.7W

TABLE 8

		PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF PRECIPITATION WITH VARYING VALUES OF VISIBILITY											TOTAL OBS
VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	
<1/2	PCP	*	.0	.0	.0	.0	.0	.0	*	.0	.0	.1	
	NO PCP	.0	.0	.0	*	*	.0	.0	.0	.0	.0	.1	
	TOT %	*	.0	.0	*	*	.0	.0	*	.0	.0	.1	
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1	
	TOT %	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1	
1<2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1	
	TOT %	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1	
2<5	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.1	.1	.1	.3	.1	*	.0	.0	.0	.7	
	TOT %	.0	.1	.1	.1	.3	.1	*	.0	.0	.0	.7	
5<10	PCP	.0	.0	.1	.1	.3	.1	.0	.1	.0	.0	.6	
	NO PCP	.2	.1	.1	1.9	4.9	3.6	.5	.3	.0	.9	12.5	
	TOT %	.2	.1	.2	2.0	5.2	3.8	.5	.3	.0	.9	13.1	
10+	PCP	.0	.0	*	*	.2	.3	.0	.0	.0	.0	.6	
	NO PCP	.4	.3	.4	7.1	30.6	35.5	7.4	.9	.0	2.7	85.4	
	TOT %	.4	.3	.5	7.1	30.8	35.8	7.4	.9	.0	2.7	85.9	
TOT OBS													1564
TOT PCT		.6	.4	.8	9.2	36.4	39.8	7.9	1.3	.0	3.6	100.0	

TABLE 9

		PERCENT FREQ OF WIND DIRECTION VS WIND SPEED WITH VARYING VALUES OF VISIBILITY											TOTAL OBS
VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	*	.0	.0	*	*	.0	.0	*	.0	.0	.1	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	*	.0	.0	*	*	.0	.0	*	.0	.0	.1	
1/2<1	0-3	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1	
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1	
2<5	0-3	.0	.0	.0	*	*	.0	.0	.0	.0	.0	.1	
	4-10	.0	.1	.1	*	.3	.2	.1	.1	.0	.0	.7	
	11-21	.0	.0	.0	.1	.0	.1	.0	.0	.0	.0	.1	
	22+	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1	
	TOT %	.0	.1	.1	.1	.3	.3	.1	.1	.0	.0	.9	
5<10	0-3	.1	.1	.1	.1	.4	.5	.1	.2	.0	.8	2.2	
	4-10	.1	.1	.1	1.6	2.7	1.9	.4	.1	.0	.0	7.0	
	11-21	.0	.0	.0	*	1.7	1.5	.1	.0	.0	.0	3.3	
	22+	.0	.0	.0	.0	*	.1	.0	.0	.0	.0	.1	
	TOT %	.2	.1	.2	1.8	4.8	3.9	.6	.3	.0	.8	12.7	
10+	0-3	.3	.2	.1	.5	1.6	2.5	1.0	.3	.0	2.8	9.3	
	4-10	.1	.1	.4	5.0	19.2	22.5	5.6	.8	.0	.0	53.6	
	11-21	*	.0	.0	1.1	9.0	11.6	1.2	.1	.0	.0	23.0	
	22+	.0	.0	.0	.0	.2	.1	*	.0	.0	.0	.3	
	TOT %	.4	.3	.5	6.7	29.9	36.8	7.8	1.1	.0	2.8	86.2	
TOT OBS													1778
TOT PCT		.6	.5	.7	8.5	35.1	41.0	8.5	1.5	.0	3.7	100.0	

PERIOD: (PRIMARY) 1931-1977
(OVER-ALL) 1875-1977

MAY

AREA 0034 GUAYAQUIL
1.85 81.7W

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NH >4/8) AND
OCCURRENCE OF NH <5/8 BY HOUR

HR (GMT)	000 149	150 299	300 599	400 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00003	.0	.3	2.0	7.7	8.0	4.7	2.3	2.3	1.0	.7	29.1	70.9	299
06009	.4	.0	1.2	9.1	17.9	6.3	4.0	2.4	.4	.4	42.1	57.9	252
12015	.3	.3	1.5	14.1	19.2	9.9	4.2	1.8	1.8	3.0	56.2	43.8	333
18021	.0	.3	1.4	7.4	7.9	5.1	2.3	.8	.3	1.4	26.9	73.1	353
TOT	2	3	19	119	161	81	39	22	11	18	475	762	1237
PCT	.2	.2	1.5	9.6	13.0	6.5	3.2	1.8	.9	1.5	38.4	61.6	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.0	.0	.2	2.1	10.8	87.4	438
06009	.0	.0	.0	.8	13.8	85.5	399
12015	.2	.2	.0	.7	13.0	85.9	454
18021	.2	.0	.0	.6	14.8	84.4	507
TOT	2	1	1	18	234	1542	1798
PCT	.1	.1	.1	1.0	13.0	85.8	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR
CEILING HGT (FEET, NH >4/8) BY HOUR

HR (GMT)	<150 <500	<600 <1	<1000 <5	1000+ AND 5+	NH <5/8 AND 5+	TOTAL OBS
00003	.0	2.4	12.1	18.7	69.2	289
06009	.4	1.6	11.2	31.7	57.0	249
12015	.3	2.1	17.2	40.5	42.3	326
18021	.0	1.7	9.8	18.2	72.0	347
TOT	2	24	153	328	730	1211
PCT	.2	2.0	12.6	27.1	60.3	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
85/89	.0	.0	.0	.1	.0	.1	.0	.0	2	.1
80/84	.0	.0	.0	.0	.8	3.0	1.6	.1	88	6.1
75/79	.0	.0	.1	.0	.4	11.8	25.4	5.7	639	44.3
70/74	.0	.0	.0	.0	.1	3.5	24.4	18.5	600	41.6
65/69	.0	.0	.0	.0	.1	.3	3.0	4.0	107	7.4
60/64	.0	.0	.0	.0	.0	.0	.0	.4	6	.4
TOTAL	0	0	1	1	20	279	784	357	1442	100.0
PCT	.0	.0	.1	.1	1.4	19.3	54.4	24.8		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.0	.1	.0	.0	.0	.1	.0	.0	.0	.0
.1	.0	.0	.6	1.7	2.2	.7	.3	.0	.6
.3	.2	.4	4.2	14.0	18.7	4.1	.5	.0	1.9
.2	.0	.3	5.3	16.4	15.5	2.7	.1	.0	1.1
.1	.1	.1	1.0	3.4	2.3	.1	.1	.0	.3
.0	.0	.0	.1	.2	.1	.0	.0	.0	.0
.7	.2	.8	11.1	35.7	38.9	7.6	1.0	.0	4.0

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	82	81	79	74	69	66	64	74.4	521
06009	84	80	78	74	68	66	64	73.7	501
12015	86	81	79	74	68	65	64	73.8	531
18021	88	84	82	76	69	66	64	76.2	743
TOT	88	83	81	75	69	66	64	74.7	2296

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	.0	.3	13.8	59.3	26.7	86	378
06009	.0	.3	.3	7.6	48.0	43.8	88	304
12015	.0	.0	.3	12.6	59.2	28.0	86	397
18021	.0	.2	4.1	37.9	47.1	10.7	81	412
TOT	0	2	20	281	799	389	85	1491

PERIOD: (PRIMARY) 1931-1977
(OVER-ALL) 1875-1977

MAY

AREA 0034 GUAYAQUIL
1.85 81.7W

TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	61 64	65 68	69 72	73 76	77 80	81 84	85 88	TOT	H FOG	NO FOG
14/16	.0	.0	.0	.0	.0	.1	.0	1	.0	.1
11/13	.0	.0	.0	.0	.1	.1	.1	4	.0	.3
9/10	.0	.0	.0	.1	.3	.1	.0	8	.0	.6
7/8	.0	.0	.1	.1	.2	.4	.0	12	.0	.8
6	.0	.0	.3	.1	.4	.4	.1	18	.0	1.3
5	.0	.1	.2	.3	.8	.2	.0	22	.0	1.5
4	.0	.0	.4	.4	.8	.4	.1	30	.1	2.0
3	.0	.2	.6	.8	.8	.2	.1	39	.0	2.7
2	.0	.3	.7	2.0	1.8	.5	.0	75	.1	5.2
1	.0	.5	2.0	4.0	1.4	.4	.0	120	.1	8.3
0	.0	.5	2.9	4.6	3.8	.7	.0	177	.3	12.1
-1	.1	.6	3.7	5.5	3.4	.7	.0	198	.4	13.5
-2	.0	.5	2.7	5.5	3.9	.1	.0	181	.1	12.6
-3	.0	.4	3.2	7.4	3.7	.1	.0	210	.1	14.7
-4	.1	.3	2.4	4.5	2.0	.0	.0	132	.0	9.3
-5	.0	.3	1.5	3.4	1.5	.1	.0	97	.0	6.6
-6	.0	.1	.5	1.8	.1	.0	.0	35	.0	2.5
-7/-8	.0	.2	1.3	1.7	.4	.0	.0	51	.0	3.7
-9/-10	.0	.0	.4	.2	.2	.0	.0	11	.0	.8
-11/-13	.0	.0	.0	.2	.0	.0	.0	3	.0	.0
TOTAL	2	57	325	607	366	63	4	1424	1.1	1408
PCT	.1	4.0	22.8	42.6	25.7	4.4	.3	100.0	1.1	98.9

PERIOD: (OVER-ALL) 1963-1977

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	N							PCT	NE							PCT
	1-3	4-10	11-21	22-33	34-47	48+			1-3	4-10	11-21	22-33	34-47	48+		
<1	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.2
1-2	.0	.2	.0	.0	.0	.0	.0	.2	.0	.2	.0	.0	.0	.0	.0	.2
3-4	.1	.0	.0	.0	.0	.0	.0	.1	.0	.2	.0	.0	.0	.0	.0	.2
5-6	.0	.1	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.1	.3	.0	.0	.0	.0	.0	.4	.2	.3	.0	.0	.0	.0	.0	.5

HGT	E							PCT	SE							PCT
	1-3	4-10	11-21	22-33	34-47	48+			1-3	4-10	11-21	22-33	34-47	48+		
<1	.0	.3	.0	.0	.0	.0	.0	.3	.5	.8	.0	.0	.0	.0	.0	1.2
1-2	.0	.3	.0	.0	.0	.0	.0	.3	.2	.5	.0	.0	.0	.0	.0	3.7
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.5	.7	.0	.0	.0	.0	.0	2.3
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.2
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.6	.0	.0	.0	.0	.0	.6	.5	5.5	1.4	.0	.0	.0	.0	7.4

PERIOD: (OVER-ALL) 1963-1977

MAY

AREA 0034 GUAYAQUIL
1.85 81.7W

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.8	3.3	.0	.0	.0	.0	4.2	2.4	5.9	.0	.0	.0	.0	8.3
1-2	.7	9.9	3.6	.0	.0	.0	14.2	.2	12.4	2.9	.0	.0	.0	15.5
3-4	.6	6.8	6.4	.0	.0	.0	13.7	1.0	7.2	6.6	.0	.0	.0	14.8
5-6	.0	1.0	2.1	.2	.0	.0	3.2	.3	1.0	2.7	.3	.0	.0	4.4
7	.0	.0	.2	.0	.0	.0	.3	.0	.0	.3	.0	.0	.0	.3
8-9	.0	.1	.2	.0	.0	.0	.3	.0	.0	.1	.0	.0	.0	.1
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	2.1	21.1	12.4	.3	.0	.0	35.9	3.9	26.5	12.6	.3	.0	.0	43.4

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.9	2.0	.0	.0	.0	.0	2.9	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	2.2	.8	.0	.0	.0	3.0	.0	.1	.0	.0	.0	.0	.1	.1
3-4	.1	1.8	.3	.0	.0	.0	2.2	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.0	6.0	1.4	.0	.0	.0	8.4	.0	.2	.0	.0	.0	.0	.2	96.6

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	8.2	12.2	.0	.0	.0	.0	20.4	
1-2	1.1	28.3	7.8	.0	.0	.0	37.1	
3-4	2.1	17.4	13.9	.0	.0	.0	33.3	
5-6	.3	2.1	5.2	.5	.0	.0	8.1	
7	.0	.0	.5	.2	.0	.0	.6	
8-9	.0	.2	.3	.0	.0	.0	.5	
10-11	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	11.7	60.1	27.5	.6	.0	.0	100.0	657

PERIOD: (OVER-ALL) 1950-1977

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	9.4	15.1	19.3	6.6	1.6	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	545	3
6-7	.1	.9	7.0	7.4	2.9	.5	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	196	5
8-9	.0	1.1	1.5	1.7	3.2	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	83	5
10-11	.0	1.2	1.2	1.9	.4	.6	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	55	4
12-13	.0	.0	1.4	.9	1.4	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	41	5
>13	.0	.0	.0	.4	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	5	5
INDET	3.8	2.5	3.8	1.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	115	2
TOTAL	138	215	356	207	101	18	5	0	0	0	0	0	0	0	0	0	0	0	0	1040	3
PCT	13.3	20.7	34.2	19.9	9.7	1.7	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	

PERIOD: (PRIMARY) 1930-1977
(OVER-ALL) 1872-1977

JUNE

AREA 0034 GUAYAGUIL
1,85 81.7W

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

PRECIPITATION TYPE										OTHER WEATHER PHENOMENA					
WIND DIR	RAIN	RAIN SHWK	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FGD WD PCPN	FGD WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST BLWG SNOW	NO SIG WEA
N	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	8.3	.0	91.7
E	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	37.5	.0	62.5
SE	.0	1.3	1.3	.0	.0	.0	.0	2.5	1.3	.0	5.7	.0	3.2	.0	87.3
S	.2	.1	.6	.0	.0	.0	.0	.8	1.1	.2	.1	.0	2.2	.0	95.6
SW	1.0	.2	1.7	.0	.0	.0	.2	3.0	.9	.0	.5	.0	3.3	.0	92.3
W	1.2	.0	.0	.0	.0	.0	.0	1.2	.0	.0	.0	.0	5.3	.0	93.5
NW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	20.0	.0	80.0
TOT PCT	.6	.2	1.1	.0	.0	.0	.1	1.9	1.0	.1	.6	.0	3.2	.0	93.3
TOT OBS:	1361														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWK	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FGD WD PCPN	FGD WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST BLWG SNOW	NO SIG WEA
00603	.0	.0	.3	.0	.0	.0	.0	.3	.6	.0	.3	.0	3.3	.0	95.5
06609	1.5	.0	1.9	.0	.0	.0	.0	3.1	1.2	.0	1.5	.0	.8	.0	93.5
12015	1.0	.8	2.4	.0	.0	.0	.3	4.5	2.1	.3	.5	.0	3.4	.0	89.2
18021	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.5	.0	4.3	.0	95.3
TOT PCT	.6	.2	1.1	.0	.0	.0	.1	1.9	.9	.1	.7	.0	3.1	.0	93.3
TOT OBS:	1373														

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							48+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)						
	0-3	4-10	11-21	22-33	34-47	00	03					06	09	12	15	18	21	
N	.0	.2	.1	.0	.0	.0	.3	9.8	.5	.0	.4	1.0	.2	.0	.2	.0		
NE	.0	.1	.1	.0	.0	.0	.3	7.4	.2	.0	.1	.5	.6	.0	.2	.0		
E	.1	.2	.1	.0	.0	.0	.3	7.1	.0	.0	.3	1.5	.5	.0	.4	.0		
SE	.3	4.6	1.3	*	.0	.0	6.2	8.9	4.6	18.5	7.1	3.0	5.3	12.2	8.0	2.4		
S	1.7	21.2	14.9	.7	.0	.0	38.4	10.4	36.9	45.7	38.5	35.6	41.0	49.4	39.4	27.8		
SW	1.6	27.1	16.7	.4	.0	.0	45.8	10.0	48.3	35.9	45.1	45.0	45.0	32.1	43.8	57.5		
W	.4	4.7	1.2	*	.0	.0	6.3	8.5	7.2	.0	6.5	8.4	4.6	5.8	5.6	12.3		
NW	.1	1.0	*	.0	.0	.0	1.1	6.6	1.3	.0	1.4	3.0	.6	.6	1.1	.0		
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
CALM	1.3						1.3	.0	.9	.0	.6	2.0	2.3	.0	1.4	.0		
TOT OBS	111	1209	704	23	0	0	2047	9.8	425	23	340	101	438	39	557	124		
TOT PCT	5.4	59.1	34.4	1.1	.0	.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0		

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)					TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)				
	0-6	7-16	17-27	28-40	41+				00	06	12	18	21
N	.1	.2	.0	.0	.0		.3	9.8	.4	.6	.2	.1	
NE	.2	.0	.0	.0	.0		.3	7.4	.2	.2	.5	.1	
E	.2	.1	.0	.0	.0		.3	7.1	.0	.6	.4	.3	
SE	1.7	4.3	.1	.0	.0		6.2	8.9	5.4	6.1	5.9	7.0	
S	7.3	27.6	3.4	.1	.0		38.4	10.4	37.4	37.9	41.7	37.3	
SW	9.1	33.9	2.6	.2	.0		45.8	10.0	47.7	45.1	44.0	46.3	
W	2.0	4.3	.1	.0	.0		6.3	8.5	6.8	6.9	4.7	6.8	
NW	.6	.5	.0	.0	.0		1.1	6.6	1.2	1.8	.6	.9	
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	
CALM	1.3	.0	.0	.0	.0		1.3	.0	.9	.9	2.1	1.2	
TOT OBS	459	1451	130	7	0	2047		9.8	448	441	477	681	
TOT PCT	22.4	70.9	6.4	.3	.0		100.0		100.0	100.0	100.0	100.0	

PERIOD: (PRIMARY) 1930-1977
(OVER-ALL) 1872-1977

JUNE

AREA 0034 GUAYAQUIL
1.85 81.7M

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)				48+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47					
0000	.9	3.1	59.8	35.0	1.1	.0	.0	.0	10.0	100.0	448
0600	.9	2.9	57.6	36.5	1.1	.0	.0	.0	9.9	100.0	441
1200	2.1	5.9	60.0	31.4	.6	.0	.0	.0	9.3	100.0	477
1800	1.2	3.8	58.9	34.7	1.5	.0	.0	.0	10.0	100.0	681
TOT	26	85	1209	704	23	0	0	0	9.8		2047
PCT	1.3	4.2	59.1	34.4	1.1	.0	.0	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & Obscd	TOTAL Obs	MEAN CLOUD COVER
N	.0	.0	.1	.1		7.0
NE	.0	.1	.2	*		5.5
E	.0	.0	.1	.0		7.0
SE	1.3	.8	1.3	2.2		5.3
S	6.1	5.0	12.5	19.0		5.9
SW	5.0	3.8	15.7	19.0		6.1
W	.7	.7	1.1	3.3		6.2
NW	*	.1	.2	.4		6.6
VAR	.0	.0	.0	.0		.0
CALM	.0	.2	.4	.5		6.4
TOT OBS	121	99	289	410	919	6.0
TOT PCT	13.2	10.8	31.4	44.6	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8)
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH <5/8 ANY HGT	TOTAL OBS
N	.0	.0	.0	.0	.1	.1	.0	.0	.0	.0	.0	.0
NE	.0	.0	.0	.1	*	*	.0	.0	.0	.0	.0	.1
E	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0
SE	.0	.0	.4	.4	1.3	.5	.2	.0	.0	.0	.0	2.8
S	.1	.4	1.0	8.1	8.6	3.7	1.7	.6	.1	.4	18.1	
SW	.1	.3	1.9	5.4	13.3	4.5	1.3	.4	.3	.2	15.6	
W	.0	.0	.1	.5	1.7	.5	.0	.1	.0	.1	2.7	
NW	.0	.0	.1	.0	.1	.2	.1	.0	.0	.0	.3	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.0	.0	.1	.3	.2	.1	.0	.0	.0	.4	
TOT OBS	2	6	32	136	234	89	31	10	4	7	368	919
TOT PCT	.2	.7	3.5	14.8	25.5	9.7	3.4	1.1	.4	.8	40.0	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE
OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)							
	= OR >10	= OR >5	= OR >2	= OR >1	= OR >1/2	= OR >1/4	= OR >50YD	= OR >0
= OR >5500	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
= OR >5000	1.9	2.3	2.3	2.3	2.3	2.3	2.3	2.3
= OR >3500	4.8	5.6	5.6	5.6	5.6	5.6	5.6	5.6
= OR >2000	13.1	15.2	15.2	15.2	15.2	15.2	15.2	15.2
= OR >1000	35.0	40.6	40.6	40.6	40.6	40.6	40.6	40.6
= OR >600	44.7	55.2	55.5	55.5	55.5	55.5	55.5	55.5
= OR >300	46.8	58.4	59.0	59.0	59.0	59.0	59.0	59.0
= OR >150	47.4	59.1	59.6	59.6	59.6	59.6	59.6	59.6
= OR >0	47.5	59.2	59.8	59.8	59.8	59.8	59.8	59.8
TOTAL	440	548	554	554	554	554	554	554

TOTAL NUMBER OF OBSI 926

PCT FREQ NH <5/8 40.2

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

	0	1	2	3	4	5	6	7	8 DBSCD	TOTAL OBS
	10.0	7.2	7.5	7.6	6.8	5.7	10.1	10.2	35.0	1003

PERIOD: (PRIMARY) 1930-1977
(OVER-ALL) 1872-1977

JUNE

AREA 0034 GUAYAGUIL
1.8S 81.7W

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1<2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
2<5	PCP	.0	.0	.0	.0	.1	.2	.0	.0	.0	.0	.2	
	NO PCP	.0	.0	.0	.1	.1	.7	*	.0	.0	.0	.9	
	TOT %	.0	.0	.0	.1	.1	.9	*	.0	.0	.0	1.1	
5<10	PCP	.0	.0	.0	.1	.2	.6	.0	.0	.0	.0	.8	
	NO PCP	.0	*	.1	1.6	8.8	4.6	1.4	.1	.0	.2	16.6	
	TOT %	.0	*	.1	1.6	8.9	5.1	1.4	.1	.0	.2	17.5	
10+	PCP	.0	.0	.0	.1	.0	.5	.1	.0	.0	.0	.7	
	NO PCP	.2	.2	.1	4.0	31.2	39.1	4.5	.6	.0	.9	80.8	
	TOT %	.2	.2	.1	4.1	31.2	39.6	4.5	.6	.0	.9	81.4	
TOT OBS													1352
TOT PCT		.2	.2	.1	5.6	40.3	45.6	6.0	.7	.0	1.1	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	*	*	.0	.0	.0	.0	.1	
	11-21	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1	
2<5	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.1	.1	.8	.1	.0	.0	.0	1.1	
	11-21	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.2	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.1	.1	1.0	.1	.0	.0	.0	1.3	
5<10	0-3	.0	*	*	.0	.2	.1	.1	.0	.0	.3	.7	
	4-10	*	.0	.0	1.3	4.8	3.0	1.1	.1	.0	.0	10.3	
	11-21	.0	*	*	.2	3.0	2.5	.3	.0	.0	.0	6.0	
	22+	.0	.0	.0	.0	.2	.2	.0	.0	.0	.0	.3	
	TOT %	*	*	.1	1.4	8.2	5.8	1.4	.1	.0	.3	17.3	
10+	0-3	.0	.0	*	.3	1.4	1.6	.4	*	.0	.9	4.6	
	4-10	.2	.2	*	2.4	15.3	23.5	3.7	1.0	.0	.0	46.3	
	11-21	*	*	.1	.9	12.3	15.2	1.1	*	.0	.0	29.7	
	22+	.0	.0	.0	.0	.5	.2	*	.0	.0	.0	.7	
	TOT %	.2	.2	.1	3.6	29.6	40.5	5.2	1.0	.0	.9	81.3	
TOT OBS													1592
TOT PCT		.2	.3	.2	5.1	37.9	47.3	6.7	1.1	.0	1.1	100.0	

PERIOD: (PRIMARY) 1930-1977
(OVER-ALL) 1872-1977

JUNE

AREA 0034 GUAYAGUIL
1.85 81.7M

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NH >4/8) AND
OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 949	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00003	.4	1.2	2.4	11.7	29.9	6.9	2.8	.8	.4	.0	50.6	49.4	247
06009	.0	.5	3.3	16.9	21.3	10.4	4.4	1.1	.0	1.6	59.6	40.4	183
12015	.4	.4	6.3	19.8	26.9	10.8	4.1	1.9	.4	1.1	72.0	28.0	268
18021	.0	.4	1.2	9.7	27.0	9.7	2.0	.4	.8	.4	51.6	48.4	248
TOT	2	6	32	137	237	89	31	10	4	7	555	391	946
PCT	.2	.6	3.4	14.5	25.1	9.4	3.3	1.1	.4	.7	58.7	41.3	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NH) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.0	.3	.0	.8	15.6	83.3	377
06009	.0	.0	.0	1.1	29.2	75.6	349
12015	.0	.0	.0	1.7	19.5	78.8	406
18021	.0	.0	.4	1.3	12.7	85.6	473
TOT	0	1	2	20	279	1303	1605
PCT	.0	.1	.1	1.2	17.4	81.2	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NH) AND/OR
CEILING HGT (FEET, NH >4/8), BY HOUR

HOUR (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND 5+	NH <5/8 AND 5+	TOTAL OBS
00003	.4	4.1	16.1	35.5	48.3	242
06009	.0	3.9	21.0	39.2	39.8	181
12015	.4	7.3	27.6	46.0	26.4	261
18021	.0	1.7	12.0	40.9	47.1	242
TOT	2	40	178	376	372	926
PCT	.2	4.3	19.2	40.6	40.2	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
85/89	.0	.1	.0	.1	.1	.2	.1	.0	6	.5
80/84	.0	.0	.0	.1	.2	1.3	1.0	.1	33	2.7
75/79	.0	.0	.0	.1	.2	9.6	16.0	4.2	372	30.1
70/74	.0	.0	.0	.0	.1	6.0	31.0	13.5	624	50.6
65/69	.0	.0	.0	.0	.1	.7	7.5	7.0	188	15.2
60/64	.0	.0	.0	.0	.1	.0	.5	.3	11	.9
TOTAL	0	1	0	3	9	220	692	309	1234	100.0
PCT	.0	.1	.0	.2	.7	17.8	56.1	25.0		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.0	.0	.0	.0	.3	.2	.0	.0	.0	.0
.0	.0	.0	.1	1.1	1.3	.1	.0	.0	.0
.0	.1	.1	1.3	11.8	14.2	2.0	.2	.0	.4
.1	.1	.2	4.0	19.6	22.6	2.9	.4	.0	.6
.1	.0	.0	1.0	8.2	5.6	.3	.0	.0	.0
.0	.0	.0	.2	.5	.2	.0	.0	.0	.0
.2	.2	.3	6.6	41.5	44.1	5.3	.6	.0	1.1

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	90%	5%	1%	MIN	MEAN	TOTAL OBS
00003	81	80	78	72	67	64	60	72.5	448
06009	84	78	77	72	66	64	63	71.7	436
12015	81	78	77	72	66	63	60	72.2	477
18021	88	84	80	75	68	66	65	74.6	667
TOT	88	81	78	73	67	64	60	73.0	2028

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	.3	1.0	10.6	64.9	23.2	85	302		
06009	.0	.0	.9	4.8	53.3	41.0	88	229		
12015	.0	.0	.3	10.1	57.8	31.9	86	348		
18021	.0	.8	.8	39.1	48.6	10.6	81	368		
TOT	0	4	9	222	698	314	85	1247		

PERIOD: (PRIMARY) 1930-1977
(OVER-ALL) 1872-1977

JUNE

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1.85 81.7W

TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	57 60	61 64	65 68	69 72	73 76	77 80	81 84	85 88	TOT	N FOG	NO FOG
14/16	.0	.0	.0	.1	.0	.0	.0	.1	2	.0	.2
11/13	.0	.0	.0	.0	.0	.1	.0	.1	2	.0	.2
9/10	.0	.0	.0	.1	.1	.1	.0	.1	4	.0	.4
7/8	.0	.0	.0	.1	.3	.3	.0	.1	8	.0	.7
6	.0	.0	.1	.4	.2	.1	.2	.0	10	.0	.9
5	.0	.0	.1	.5	.2	.3	.0	.1	13	.0	1.1
4	.0	.0	.1	1.0	.4	.3	.2	.0	22	.0	1.9
3	.0	.1	.2	.7	.5	.1	.1	.0	19	.0	1.7
2	.0	.0	.9	1.1	1.0	.7	.3	.0	45	.0	4.0
1	.0	.2	.8	1.5	2.6	.9	.1	.2	71	.1	6.1
0	.0	.0	2.5	3.2	3.7	2.5	.3	.0	139	.3	11.9
-1	.0	.0	1.1	3.9	5.4	2.6	.1	.0	149	.3	12.8
-2	.0	.1	1.1	4.2	4.9	2.8	.1	.0	151	.0	13.3
-3	.0	.0	1.1	5.4	5.2	2.8	.0	.0	165	.1	14.4
-4	.0	.3	1.0	3.1	5.6	.6	.0	.0	120	.0	10.5
-5	.0	.0	.7	3.8	3.5	.8	.0	.0	100	.0	8.8
-6	.1	.1	1.0	1.4	1.3	.2	.0	.0	46	.1	4.0
-7/-8	.0	.0	.4	2.0	1.7	.1	.0	.0	47	.0	4.1
-9/-10	.0	.1	.3	.7	.4	.0	.0	.0	17	.0	1.5
-11/-13	.0	.1	.1	.4	.2	.0	.0	.0	9	.0	.8
TOTAL	1	10	128	384	423	172	14	7	1139	.8	1130
PCT	.1	.9	11.2	33.7	37.1	15.1	1.2	.6	100.0	.8	99.2

PERIOD: (OVER-ALL) 1963-1977

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0	<1	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.0	.0	.0	.0	.0	1-2	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.0	.1	.0	.0	.0	.1	3-4	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	5-6	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	7	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.0	.1	.0	.0	.0	.1	TOT PCT	.0	.0	.0	.0	.0	.0	.0

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0	<1	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.0	.0	.0	.0	.0	1-2	.0	2.6	.4	.0	.0	.0	3.0
3-4	.0	.0	.0	.0	.0	.0	.0	3-4	.0	1.4	1.3	.0	.0	.0	2.7
5-6	.0	.0	.0	.0	.0	.0	.0	5-6	.0	.2	.4	.0	.0	.0	.6
7	.0	.0	.0	.0	.0	.0	.0	7	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	8-9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.0	.0	.0	.0	.0	.0	TOT PCT	.2	4.2	2.1	.0	.0	.0	6.5

PERIOD: (OVER-ALL) 1963-1977

JUNE

AREA 0034 GUAYAQUIL
1.85 81.7M

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	1.1	2.1	.0	.0	.0	.0	3.2	.6	2.3	.2	.0	.0	.0	3.1
1-2	.4	11.2	4.1	.0	.0	.0	15.7	.3	10.5	3.7	.0	.0	.0	14.5
3-4	1.9	7.4	8.9	.2	.0	.0	18.5	1.2	9.2	9.2	.0	.0	.0	19.6
5-6	.0	.4	2.8	.3	.0	.0	3.6	.0	.9	4.7	.4	.0	.0	6.1
7	.0	.0	1.7	.6	.0	.0	1.7	.0	.2	.6	.2	.0	.0	1.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	3.5	21.1	17.0	1.1	.0	.0	42.5	2.1	23.1	18.6	.6	.0	.0	44.4

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.4	.8	.0	.0	.0	.0	1.2	.0	.1	.0	.0	.0	.0	.1	
1-2	.1	1.7	.3	.0	.0	.0	2.2	.0	.2	.0	.0	.0	.0	.2	
3-4	.0	.0	.0	.0	.0	.0	1.4	.0	.0	.0	.0	.0	.0	.0	
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.7	3.3	.8	.0	.0	.0	4.8	.0	.4	.0	.0	.0	.0	.4	99.0

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	3.6	5.6	.2	.0	.0	.0	9.4	
1-2	1.0	25.9	8.4	.0	.0	.0	35.2	
3-4	3.3	19.0	19.9	.2	.0	.0	42.3	
5-6	.0	1.5	7.9	.8	.0	.0	10.2	
7	.0	.2	1.7	.8	.0	.0	2.7	
8-9	.0	.0	.0	.0	.0	.0	.2	
10-11	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	8.0	51.9	38.3	1.7	.0	.0	100.0	522

PERIOD: (OVER-ALL) 1949-1977

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	4.7	10.0	24.3	5.1	2.0	.1	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	366	3
6-7	.0	1.8	9.4	10.4	3.3	.3	.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	203	4
8-9	.0	.5	1.6	7.0	4.4	.8	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	114	5
10-11	.0	.4	.6	.3	.9	.3	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	20	5
12-13	.0	.0	.6	.5	.9	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	17	6
>13	.0	.0	.0	.8	.1	.3	.0	.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	7
INDET	1.5	1.5	3.5	1.2	.3	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	66	3
TOTAL	49	112	317	195	94	15	8	1	0	0	0	0	0	0	0	0	0	0	0	791	4
PCT	6.2	14.2	40.1	24.7	11.9	1.9	1.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	

PERIOD: (PRIMARY) 1929-1977
(OVER-ALL) 1868-1977

JULY

AREA 0034 GUAYAQUIL
1.9S 81.5W

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

PRECIPITATION TYPE										OTHER WEATHER PHENOMENA						
WIND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA	
N	.0	.0	33.3	.0	.0	.0	.0	33.3	.0	.0	.0	.0	.0	.0	66.7	
NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	.0	.0	
E	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	
SE	.0	.0	5.3	.0	.0	.0	.0	5.3	1.5	.8	7.2	.0	.4	.0	84.8	
S	.2	.3	2.7	.0	.0	.0	.0	3.4	1.1	.4	.9	.0	2.0	.0	92.1	
SW	.4	.3	2.8	.0	.0	.0	.0	3.3	1.9	.0	.1	.0	1.9	.0	92.8	
W	.0	.0	2.2	.0	.0	.0	.0	2.2	.0	.0	.0	.0	5.6	.0	92.3	
NW	.0	.0	11.1	.0	.0	.0	.0	11.1	.0	.0	.0	.0	8.3	.0	80.6	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.0	5.0	.0	.0	.0	.0	5.0	5.0	.0	.0	.0	5.0	.0	85.0	
TOT PCT	.3	.3	3.0	.0	.0	.0	.0	3.5	1.5	.2	.7	.0	2.2	.0	91.9	
TOT OBS:	1538															

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
00003	.0	.0	2.5	.0	.0	.0	.0	2.5	.0	.3	.6	.0	2.8	.0	93.8
06009	1.2	.8	4.0	.0	.0	.0	.0	6.0	.4	.8	1.2	.0	.0	.0	91.6
12015	.2	.7	5.4	.0	.0	.0	.0	6.1	3.9	.0	.7	.0	1.4	.0	88.0
18021	.0	.0	.7	.0	.0	.0	.0	.7	1.1	.0	.4	.0	3.7	.0	94.1
TOT PCT	.3	.3	3.0	.0	.0	.0	.0	3.6	1.5	.2	.7	.0	2.2	.0	91.9
TOT OBS:	1547														

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							48+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)						
	0-3	4-10	11-21	22-33	34-47	00	03					06	09	12	15	18	21	
N	*	.2	*	.0	.0	.0	.3	5.7	.0	.0	.6	.0	.1	.0	.5	.5		
NE	*	*	*	.0	.0	.0	.1	6.6	.2	.0	.0	.8	.0	.0	.2	.0		
E	.0	.1	*	.0	.0	.0	.2	9.0	.2	.0	.3	.0	.2	.0	.2	.0		
SE	.2	3.4	1.2	.0	.0	.0	4.8	9.1	3.8	15.8	5.7	6.9	3.8	8.0	5.1	3.9		
S	1.9	21.7	13.6	.1	.0	.0	37.3	9.8	32.9	60.8	41.7	32.7	38.8	38.4	38.4	31.6		
SW	3.1	29.5	13.5	.3	.0	.0	48.4	9.5	52.9	23.3	43.8	51.8	48.2	51.8	46.9	51.6		
W	.6	4.2	1.4	.1	.0	.0	6.2	8.3	8.3	.0	5.6	4.1	4.6	1.8	6.4	8.8		
NW	.2	.8	.2	.0	.0	.0	1.1	6.8	.9	.0	1.7	2.0	.9	.0	.9	1.6		
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
CALM	1.6						1.6	.0	.8	.0	.6	1.6	3.5	.0	1.4	1.9		
TOT OBS	174	1367	730	11	0	0	2262			503	30	347	123	520	28	572	159	
TOT PCT	7.6	59.9	32.0	.5	.0	.0		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)				TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)			
	0-6	7-16	17-27	28-40				00	06	12	18
N	.2	.1	.0	.0	.0	.3	5.7	.0	.4	.1	.5
NE	.1	.0	.0	.0	.0	.1	6.6	.2	.2	.0	.1
E	.1	.1	.0	.0	.0	.2	9.0	.2	.2	.2	.2
SE	1.2	3.5	.2	.0	.0	4.8	9.1	4.5	6.0	4.0	4.9
S	7.7	27.8	1.8	.0	.0	37.3	9.8	34.5	39.4	38.8	36.9
SW	12.2	33.8	2.4	.0	.0	48.4	9.5	51.3	45.9	46.4	47.9
W	2.5	3.5	.2	.0	.0	6.2	8.3	7.8	5.2	4.4	6.9
NW	.7	.4	.0	.0	.0	1.1	6.8	.8	1.8	.9	1.1
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	1.6	.0	.0	.0	.0	1.6	.0	.8	.9	3.3	1.5
TOT OBS	597	1581	104	0	0	2232		533	470	548	731
TOT PCT	26.2	69.3	4.6	.0	.0	100.0		100.0	100.0	100.0	100.0

PERIOD: (PRIMARY) 1929-1977
(OVER-ALL) 1868-1977

JULY

AREA 0094 GUAYAGUIL
1.95 81.5W

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)				48+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47					
0000Z	.8	7.1	57.0	33.8	.8	.0	.0	.0	9.5	100.0	533
0600Z	.9	4.5	60.0	34.0	.6	.0	.0	.0	9.7	100.0	470
1200Z	3.3	8.6	59.1	28.6	.4	.0	.0	.0	8.8	100.0	548
1800Z	1.5	4.2	62.1	31.9	.3	.0	.0	.0	9.4	100.0	731
TOT	37	137	1367	730	11	0	0	0	9.3		2282
PCT	1.6	6.0	59.9	32.0	.5	.0	.0	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	.0	.0	.0	.0	.0	.0
NE	.0	.0	.0	.0	.0	.0
E	.0	.0	.2	.0	5.5	.0
SE	.2	.4	1.4	1.9	6.6	.0
S	3.3	2.3	8.9	23.7	6.7	.0
SW	3.8	3.3	11.7	31.7	6.8	.0
W	.4	.6	1.2	2.6	6.4	.0
NW	.8	.1	.1	.5	6.9	.0
VAR	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.4	1.3	7.7	.0
TOT OBS	82	70	254	653	1059	6.7
TOT PCT	7.7	6.6	24.0	61.7	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NM >4/8)
AND OCCURRENCE OF NM <5/8 BY WIND DIRECTION

	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+ NH <5/8 ANY HGT	TOTAL OBS
N	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
E	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1
SE	.0	.0	.1	.4	1.2	.6	.5	.0	.0	.0	1.3
S	.0	.1	1.7	7.4	13.0	5.7	1.7	.2	.2	.1	8.2
SW	.2	.3	2.9	12.7	16.5	4.5	1.7	.3	.6	.4	10.5
W	.1	.0	.3	1.0	1.2	.4	.2	.0	.1	.1	1.3
NW	.0	.0	.0	.1	.4	.0	.1	.0	.0	.0	.1
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.3	.3	.6	.2	.1	.0	.1	.0	.2
TOT OBS	3	4	56	231	348	121	46	5	10	6	229
TOT PCT	.3	.4	5.3	21.8	32.9	11.4	4.3	.5	.9	.6	21.6

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE
OF CEILING HEIGHT (NM >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)							
	>10	>5	>2	>1	>1/2	>1/4	>50YD	>0
>6500	1.4	1.5	1.5	1.5	1.5	1.5	1.5	1.5
>5000	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0
>3500	5.8	6.3	6.4	6.4	6.4	6.4	6.4	6.4
>2000	15.5	17.7	17.9	17.9	17.9	17.9	17.9	17.9
>1000	43.7	50.2	50.8	50.8	50.8	50.9	50.9	50.9
>600	60.8	71.5	72.3	72.4	72.4	72.5	72.5	72.5
>500	64.1	76.8	77.6	77.7	77.7	77.8	77.8	77.8
>150	64.2	77.0	77.9	78.0	78.0	78.1	78.1	78.1
>0	64.3	77.3	78.1	78.3	78.3	78.4	78.4	78.4
TOTAL	682	820	829	831	831	832	832	832

TOTAL NUMBER OF OBS 1061

PCT FREQ NM <5/8 21.6

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8 OBSCD	TOTAL OBS
3.9	4.2	3.6	5.6	4.1	4.9	6.4	11.9	55.2	1135

PERIOD: (PRIMARY) 1929-1977
(OVER-ALL) 1868-1977

JULY

TABLE 8

AREA 0034 GUAYAQUIL
1.95 81.5W

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.0	*	*	.0	.0	.0	.0	.0	.1
	TOT %	.0	.0	.0	.0	*	*	.0	.0	.0	.0	.0	.1
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1<2	PCP	.0	.0	.0	.1	*	.1	.0	.0	.0	.0	.0	.2
	NO PCP	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.1
	TOT %	.0	.0	.0	.1	.1	.1	.0	.0	.0	.0	.0	.3
2<5	PCP	.0	.0	.0	.0	.1	.1	.0	.0	.0	.0	.0	.3
	NO PCP	.0	.0	.0	.1	.3	.2	.0	.0	.0	.0	.0	.7
	TOT %	.0	.0	.0	.1	.3	.4	.0	.0	.0	.0	.0	.9
5<10	PCP	.0	.0	.0	.1	.7	.8	.1	.0	.0	.1	1.6	
	NO PCP	.0	.0	.0	1.1	7.2	8.1	1.0	.1	.0	.1	17.6	
	TOT %	.0	.0	.0	1.2	7.8	8.9	1.0	.1	.0	.2	19.2	
10+	PCP	.0	.0	.0	.1	.4	.6	*	.1	.0	.0	1.2	
	NO PCP	.1	.1	.1	2.9	28.6	40.8	4.2	.4	.0	1.1	78.3	
	TOT %	.1	.1	.1	3.0	28.9	41.5	4.2	.5	.0	1.1	79.5	
TOT OBS													1533
TOT PCT		.1	.1	.1	4.3	37.4	50.8	5.3	.6	.0	1.3	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	*	.1	.0	.0	.0	.0	.0	.1
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	*	.1	.0	.0	.0	.0	.0	.1
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1<2	0-3	.0	.0	.0	.0	*	*	.0	.0	.0	.0	.0	.1
	4-10	.0	.0	.0	.0	.1	.1	.0	.0	.0	.0	.0	.2
	11-21	.0	.0	.0	.1	.0	.1	.0	.0	.0	.0	.0	.1
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.1	.1	.2	.0	.0	.0	.0	.0	.3
2<5	0-3	.0	.0	.0	.0	.1	.1	.0	.0	.0	.0	.0	.1
	4-10	.0	.0	.0	.1	.4	.5	*	.0	.0	.0	1.0	
	11-21	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.1	.5	.6	*	.0	.0	.0	1.3	
5<10	0-3	.0	.0	.0	.1	.1	.6	.2	.1	.0	.2	1.2	
	4-10	.0	.0	.0	.8	4.4	4.8	.8	*	.0	.0	10.8	
	11-21	.0	.0	.0	.2	2.3	2.9	.2	.0	.0	.0	5.6	
	22+	.0	.0	.0	.0	*	.1	.0	.0	.0	.0	.1	
	TOT %	.0	.0	.0	1.0	6.9	8.3	1.2	.1	.0	.2	17.7	
10+	0-3	.1	.1	.0	.2	1.3	2.5	.4	.1	.0	1.4	6.0	
	4-10	.1	.1	.1	2.0	16.2	26.3	3.4	.6	.0	.0	48.7	
	11-21	.0	.0	.1	.7	10.6	12.9	1.2	.1	.0	.0	25.6	
	22+	.0	.0	.0	.0	*	.2	.1	.0	.0	.0	.3	
	TOT %	.2	.1	.1	2.9	28.2	41.9	5.0	.7	.0	1.4	80.6	
TOT OBS													1814
TOT PCT		.2	.1	.1	4.1	35.7	51.0	6.3	.8	.0	1.7	100.0	

JULY

PERIOD: (PRIMARY) 1929-1977
(OVER-ALL) 1868-1977AREA 0034 GUAYAQUIL
1.95 81.5W

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NM >4/8) AND
OCCURRENCE OF NM <5/8 BY HOUR

HRUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NM <5/8 ANY HGT	TOTAL OBS
00003	.0	.3	3.9	20.4	30.9	10.9	4.9	.7	.3	.0	72.4	27.6	304
06009	.6	.0	1.8	20.0	22.1	10.9	5.5	1.8	1.2	1.2	75.2	24.8	165
12015	.3	.9	9.4	24.4	34.4	11.6	5.3	.0	1.9	.3	88.4	11.6	320
18021	.3	.0	3.8	20.1	32.3	11.8	2.1	.0	.3	1.0	71.9	28.1	288
TOT	3	4	56	231	350	122	47	5	10	6	834	243	1077
PCT	.3	.4	5.2	21.4	22.5	11.3	4.4	.5	.9	.6	77.4	22.6	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HRUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.2	.0	.2	1.1	14.3	84.2	461
06009	.0	.0	.0	1.4	23.1	75.4	350
12015	.2	.0	.4	1.9	20.2	77.2	470
18021	.0	.0	.6	.7	15.7	83.0	542
TOT	2	0	6	23	327	1465	1823
PCT	.1	.0	.3	1.3	17.9	80.4	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR
CEILING HGT (FEET, NM >4/8), BY HOUR

HRUR (GMT)	<150 <30YD	<600 <1	<1000 <5	1000+ AND 5+	NM <5/8 AND 5+	TOTAL OBS
00003	.0	4.3	25.8	48.2	26.1	299
06009	.6	2.4	22.6	53.0	24.4	164
12015	.3	11.1	37.1	52.7	10.2	315
18021	.4	4.2	25.1	48.1	26.9	283
TOT	3	64	302	533	226	1061
PCT	.3	6.0	28.5	50.2	21.3	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
85/89	.0	.0	.1	.0	.1	.0	.1	.0	3	.2
80/84	.0	.0	.1	.1	.1	.4	.1	.1	13	.9
75/79	.0	.0	.1	.1	.5	5.0	7.9	1.9	220	15.5
70/74	.0	.0	.0	.0	.5	6.0	34.4	9.6	725	51.0
65/69	.0	.0	.0	.0	.0	1.6	18.2	10.1	425	29.9
60/64	.0	.0	.0	.0	.0	.1	.9	1.5	36	2.5
TOTAL	0	0	4	3	17	186	882	330	1422	100.0
PCT	.0	.0	.3	.2	1.2	13.1	62.0	23.2		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
85/89	.0	.0	.0	*	.1	.1	.0	.0	.0	.0
80/84	.0	.0	.0	*	.6	.3	.0	.0	.0	.0
75/79	.0	.1	.1	.6	5.7	7.7	.9	.2	.0	.2
70/74	.1	.0	.1	2.3	16.7	27.5	2.8	.6	.0	.9
65/69	.1	.0	.0	2.2	12.5	13.5	1.4	.1	.0	.2
60/64	.0	.0	.0	.4	1.5	.7	.0	.0	.0	.0
TOTAL	.1	.1	.2	5.5	37.1	49.8	5.1	.8	.0	1.3

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HRUR (GMT)	MAX	99%	95%	90%	5%	1%	MIN	MEAN	TOTAL OBS
00003	79	78	76	71	65	63	61	70.8	534
06009	79	77	75	70	64	62	56	69.8	470
12015	84	80	77	70	65	62	61	70.6	351
18021	87	82	79	73	66	64	62	72.7	721
TOT	87	80	77	71	65	63	56	71.2	2276

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HRUR (GMT)	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	.0	.8	12.8	64.3	22.0	85	359		
06009	.0	.4	1.3	5.3	54.9	38.1	87	226		
12015	.0	.7	.5	5.8	61.9	31.1	86	415		
18021	.0	.9	2.1	24.3	64.1	8.6	82	432		
TOT	0	8	17	187	889	331	85	1432		

JULY

PERIOD: (PRIMARY) 1929-1977
(OVER-ALL) 1868-1977

TABLE 17

AREA 0034 GUAYAQUIL
1.95 81.5WPCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	01 04	05 08	09 12	13 16	17 20	18 24	19 28	TOT	W FOG	NO FOG
17/19	.0	.0	.0	.1	.0	.0	.0	1	.0	.1
14/16	.0	.0	.0	.0	.0	.1	.0	1	.0	.1
11/13	.1	.0	.0	.1	.2	.1	.1	7	.0	.5
9/10	.0	.1	.0	.1	.0	.0	.0	2	.0	.2
7/8	.0	.2	.4	.2	.1	.1	.1	13	.0	1.0
5	.1	.1	.3	.2	.1	.1	.0	10	.0	.8
4	.1	.5	.4	.1	.2	.1	.1	18	.0	1.4
3	.1	.1	.3	.6	.1	.1	.0	16	.0	1.2
2	.2	.5	.4	.2	.2	.0	.0	20	.0	1.5
1	.1	.9	.9	.9	.5	.1	.0	43	.0	3.3
0	.2	1.0	.9	1.4	.4	.1	.0	51	.0	3.9
-1	.4	1.5	2.7	1.9	.7	.0	.0	92	.0	7.1
-2	.5	2.3	4.2	1.9	1.1	.0	.0	130	.3	9.7
-3	.4	4.0	6.4	4.5	.9	.1	.0	211	.2	16.1
-4	.5	3.2	7.6	5.4	1.5	.0	.0	235	.2	19.0
-5	.2	2.8	6.0	3.4	.2	.0	.0	163	.0	12.6
-6	.2	2.2	4.0	2.0	.2	.0	.0	111	.0	8.6
-7	.1	2.2	2.9	1.0	.2	.0	.0	82	.1	6.3
-7/-8	.2	1.9	2.6	.2	.0	.0	.0	84	.0	4.9
-9/-10	.1	.6	.7	.0	.0	.0	.0	18	.0	1.4
-11/-12	.0	.1	.3	.0	.0	.0	.0	5	.0	.4
TOTAL	41	312	313	84	9	3		1293	.8	99.2
PCT	3.2	24.2	41.1	24.1	6.5	.7	.2	100.0		

PERIOD: (OVER-ALL) 1963-1977

TABLE 18

PCT FREQ OF WIND SPED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.2
1-2	.0	.0	.2	.0	.0	.0	.2	.0	.7	.0	.0	.0	.0	.7
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.3	.6	.0	.0	.0	1.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.4	.2	.0	.0	.0	.6
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.0	.2	.0	.0	.0	.2	.2	1.5	.8	.0	.0	.0	2.5

PERIOD: (OVER-ALL) 1963-1977

JULY

AREA 0034 GUAYAQUIL
1.9S 81.5W

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	1.3	2.7	.0	.0	.0	.0	4.0	1.3	8.0	.2	.0	.0	.0	7.5
1-2	.1	8.7	2.3	.0	.0	.0	11.2	.6	10.6	3.4	.0	.0	.0	14.5
3-4	.5	6.2	7.9	.1	.0	.0	14.7	2.5	9.1	8.8	.0	.0	.0	20.4
5-6	.0	3.2	3.5	.1	.0	.0	6.8	.3	3.7	4.6	.4	.0	.0	9.0
7	.1	.1	.6	.0	.0	.0	.9	.2	.4	.3	.0	.0	.0	.9
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	.0	.0	.0	.3
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	2.1	21.0	14.3	.3	.0	.0	37.6	4.9	29.8	17.6	.4	.0	.0	52.7

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.5	1.3	.0	.0	.0	.0	1.9	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	1.6	.0	.0	.0	.0	1.6	.2	.3	.0	.0	.0	.0	.5	.5
3-4	.3	.3	.7	.0	.0	.0	1.2	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.3	.0	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.1	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.8	3.2	1.1	.0	.0	.0	5.1	.2	.3	.0	.0	.0	.0	.5	98.4

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	4.1	10.0	.2	.0	.0	.0	14.3	
1-2	.9	22.1	5.9	.0	.0	.0	28.8	
3-4	3.8	15.9	18.0	.2	.0	.0	37.8	
5-6	.5	7.4	8.5	.5	.0	.0	16.8	
7	.3	.5	1.0	.0	.0	.0	1.9	
8-9	.0	.0	.3	.0	.0	.0	.3	
10-11	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	9.7	55.8	33.9	.7	.0	.0	100.0	579

PERIOD: (OVER-ALL) 1949-1977

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	8.7	12.2	23.7	8.9	2.0	.5	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	514	3
6-7	.0	1.2	7.7	10.5	3.6	.9	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	220	5
8-9	.0	.7	1.5	3.2	1.7	.5	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	73	5
10-11	.0	.3	.9	.7	.5	.1	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	26	5
12-13	.0	.0	1.2	.5	.2	.3	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	13	6
13-13	.0	.0	.0	1.0	.3	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	46	3
INDET	.9	1.6	1.0	1.0	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	913	4
TOTAL	88	147	329	235	82	23	9	2	0	0	0	0	0	0	0	0	0	0	0	100.0	
PCT	9.6	16.1	36.0	25.7	9.0	2.5	1.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	

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NAVAL WEATHER SERVICE DETACHMENT ASHEVILLE N C F/G 4/2
SUMMARY OF SYNOPTIC METEOROLOGICAL OBSERVATIONS (SSMO) SOUTH AM--ETC(U)
FEB 79

F/G 4/2

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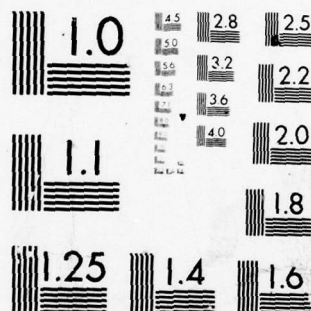
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The remaining frames (2-60) show a repeating pattern of a document page with a header, a table of data, and a footer.



PERIOD: (PRIMARY) 1930-1977
(OVER-ALL) 1873-1977

AUGUST

AREA 0034 GUAYAQUIL
1.95 81.6W

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
N	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	50.0	.0	.0	.0	50.0
E	.0	.0	.0	.0	.0	.0	.0	.0	42.9	.0	.0	.0	57.1	.0	.0
SE	2.7	1.8	5.4	.0	.0	.0	.0	9.9	2.7	.0	2.7	.0	.0	.0	84.8
S	1.0	.6	4.4	.0	.0	.0	.0	5.6	1.0	.0	1.5	.0	1.9	.0	90.1
SW	*	.1	2.1	.0	.0	.0	.0	2.2	1.4	.0	.7	.0	1.6	.0	94.1
W	.0	.0	4.6	.0	.0	.0	.0	4.6	1.9	.0	.0	.0	2.7	.0	90.8
NW	.0	.0	5.3	.0	.0	.0	.0	5.3	.0	.0	.0	.0	.0	.0	94.7
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	10.5	.0	.0	.0	.0	10.5	.0	.0	.0	.0	5.3	.0	84.2
TOT PCT	.5	.3	3.4	.0	.0	.0	.0	4.1	1.3	.0	1.0	.0	1.8	.0	91.7
TOT OBS:	1430														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
00003	.0	.0	1.5	.0	.0	.0	.0	1.5	1.0	.0	1.0	.0	1.5	.2	94.8
06009	1.7	.8	3.8	.0	.0	.0	.0	6.3	.8	.0	1.7	.0	1.3	.0	90.0
12015	.8	.3	7.1	.0	.0	.0	.0	7.6	2.3	.0	.3	.0	2.3	.0	87.4
18021	.0	.5	1.2	.0	.0	.0	.0	1.7	.7	.0	1.5	.0	2.0	.0	94.1
TOT PCT	.5	.3	3.3	.0	.0	.0	.0	4.0	1.3	.0	1.0	.0	1.8	.1	91.8
TOT OBS:	1446														

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	48+					00	03	06	09	12	15	18	21
N	.3	.1	.0	.0	.0	.0		.4	3.2	.2	.0	.4	1.3	.4	.0	.4	.0	
NE	.1	*	.0	.0	.0	.0		.1	3.0	.2	.0	.6	.0	.0	.0	.0	.0	
E	.0	.0	.1	.0	.0	.0		.1	14.1	.0	.0	.2	.0	.2	.0	.0	.0	
SE	.3	2.0	1.0	.0	.0	.0		3.3	9.2	2.4	29.8	5.1	3.8	2.2	6.8	2.9	2.6	
S	1.7	20.0	15.2	.2	.0	.0		37.1	10.2	35.7	47.6	36.4	29.7	39.6	58.0	38.2	32.2	
SW	3.2	28.7	16.4	.4	.1	.0		48.8	9.7	51.9	22.6	47.9	51.9	49.3	33.0	47.1	48.9	
W	.6	5.3	1.3	.0	.0	.0		7.2	7.9	7.7	.3	7.5	9.0	4.1	2.3	8.2	12.7	
NW	.4	1.3	.1	.0	.0	.0		1.8	5.9	1.2	.0	1.9	2.6	1.7	.0	1.9	3.5	
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.3	.0	.0	.0	.0	.0	.0	
CALM	1.1							1.1	.0	.8	.0	.0	1.7	2.5	.0	1.2	.0	
TOT OBS	169	1262	751	14	2	0	2198		9.5	529	21	350	117	479	22	566	114	
TOT PCT	7.7	57.4	34.2	.6	.1	.0		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)				
	0-6	7-16	17-27	28-40	41+						00	03	06	12	18
N	.4	.0	.0	.0	.0		.4	3.2	.2	.6	.4	.4	.4	.4	.4
NE	.1	.0	.0	.0	.0		.1	3.0	.2	.4	.0	.0	.0	.0	.0
E	.0	*	.0	.0	.0		.1	14.1	.0	.2	.2	.0	.0	.0	.0
SE	.9	2.4	.1	.0	.0		3.3	9.2	3.5	4.8	2.4	2.6	2.6	2.6	2.6
S	7.7	27.1	2.3	.0	.0		37.1	10.2	36.1	34.7	40.4	37.2	37.2	37.2	37.2
SW	11.9	34.0	2.9	.0	.1		48.8	9.7	50.8	48.9	48.6	47.4	47.4	47.4	47.4
W	3.0	4.1	.1	.0	.0		7.2	7.9	7.4	7.9	4.0	8.9	8.9	8.9	8.9
NW	1.2	.6	.0	.0	.0		1.8	5.9	1.2	2.1	1.6	2.2	2.2	2.2	2.2
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	1.1						1.1	.0	.7	.4	2.4	1.0	1.0	1.0	1.0
TOT OBS	578	1497	121	0	2	2198		9.5	530	467	501	680	680	680	680
TOT PCT	26.3	68.1	5.5	.0	.1		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0

PERIOD: (PRIMARY) 1930-1977
(OVER-ALL) 1873-1977

AUGUST

AREA 0034 GUAYAQUIL
1.9S 81.6W

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)				48+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47					
0000Z	.7	7.5	56.7	34.5	.5	.0	.0	.0	9.5	100.0	550
0600Z	.4	4.1	59.3	34.9	.9	.4	.0	.0	10.0	100.0	467
1200Z	2.4	10.2	59.3	27.5	.6	.0	.0	.0	8.6	100.0	501
1800Z	1.0	4.9	55.3	38.2	.6	.0	.0	.0	9.8	100.0	680
TOT	25	144	1262	751	14	2	0	0	9.5		2198
PCT	1.1	6.6	57.4	34.2	.6	.1	.0	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8-6 OBS	TOTAL OBS	MEAN CLOUD COVER
N	.0	.1	.1	.2		6.5
NE	.0	.0	.0	.0		.0
E	.0	.0	.0	.2		8.0
SE	.2	.2	1.2	1.7		6.6
S	3.5	1.8	7.8	23.6		6.8
SW	3.0	2.5	11.1	33.9		7.0
W	.3	.2	1.3	4.2		7.0
NW	.0	.0	.6	.7		7.4
VAR	.0	.0	.0	.0		.0
CALM	.1	.1	.2	1.2		7.2
TOT OBS	82	56	255	751	1144	6.9
TOT PCT	7.2	4.9	22.3	65.6	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8)
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH <5/8 ANY HGT	TOTAL OBS
N	.0	.0	.1	.0	.1	.0	.0	.0	.0	.0	.2	
NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
E	.0	.0	.0	.0	.1	.1	.0	.0	.0	.0	.0	
SE	.2	.2	.3	.5	1.4	.2	.1	.0	.0	.0	.7	
S	.2	.4	2.4	7.6	11.5	4.1	1.4	.4	.4	.1	8.2	
SW	.0	.7	3.3	11.9	17.0	5.0	1.6	.2	.6	.4	9.6	
W	.0	.1	1.0	1.8	1.5	.5	.3	.0	.0	.0	.9	
NW	.0	.0	.2	.6	.1	.2	.1	.0	.0	.0	.2	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.1	.0	.3	.6	.3	.0	.0	.0	.0	.3	
TOT OBS	3	14	86	260	370	118	39	8	11	6	229	1144
TOT PCT	.3	1.2	7.5	22.7	32.2	10.3	3.4	.7	1.0	.5	20.0	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE
OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)							
	>10	>5	>2	>1	>1/2	>1/4	>50YD	>0
>6500	1.4	1.5	1.5	1.5	1.5	1.5	1.5	1.5
>5000	1.8	2.2	2.2	2.2	2.2	2.2	2.2	2.2
>3500	4.2	5.2	5.6	5.6	5.6	5.6	5.6	5.6
>2000	13.4	15.6	16.0	16.0	16.0	16.0	16.0	16.0
>1000	40.6	47.4	48.2	48.2	48.2	48.2	48.2	48.2
>500	60.3	69.9	71.0	71.0	71.0	71.0	71.0	71.0
>300	65.7	77.2	78.5	78.5	78.5	78.5	78.5	78.5
>150	66.4	78.2	79.6	79.7	79.7	79.7	79.7	79.7
>0	66.6	78.5	79.9	80.0	80.0	80.0	80.0	80.0
TOTAL	768	905	921	922	922	922	922	922

TOTAL NUMBER OF OBS 1153

PCT FREQ NH <5/8 20.0

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

	0	1	2	3	4	5	6	7	8 OBS	TOTAL OBS
	3.8	3.1	4.9	4.3	3.7	4.5	7.7	11.6	56.2	1234

PERIOD: (PRIMARY) 1930-1977
(OVER-ALL) 1873-1977

AUGUST

AREA 0034 GUAYAGUIL
1.95 81.6W

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1<2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1	.1
	NO PCP	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1	.1
	TOT %	.0	.0	.0	.0	.0	.1	.0	.0	.0	.1	.2	.2
2<5	PCP	.0	.0	.0	.0	.3	.3	.0	.0	.0	.0	.6	.6
	NO PCP	.0	.0	.0	.0	.4	.4	.0	.0	.0	.0	.7	.7
	TOT %	.0	.0	.0	.0	.7	.7	.0	.0	.0	.0	1.3	1.3
5<10	PCP	.0	.0	.0	.3	1.0	.5	.2	.0	.0	.0	2.0	2.0
	NO PCP	.1	.1	.1	1.1	5.2	5.9	1.1	.2	.0	.0	13.8	13.8
	TOT %	.1	.1	.1	1.3	6.2	6.4	1.3	.2	.0	.0	15.8	15.8
10+	PCP	.0	.0	.0	.1	.8	.3	.1	.1	.0	.1	1.4	1.4
	NO PCP	.4	.0	.0	2.5	29.5	41.6	5.1	1.0	.0	1.2	81.3	81.3
	TOT %	.4	.0	.0	2.6	30.3	41.9	5.2	1.1	.0	1.3	82.7	82.7
TOT OBS													1426
TOT PCT		.4	.1	.1	3.9	37.2	49.1	6.5	1.3	.0	1.3	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1	.1
	4-10	.0	.0	.0	.0	.0	.1	*	*	.0	.0	.1	.1
	11-21	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1	.1
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.2	*	*	.0	.1	.3	.3
2<5	0-3	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1	.1
	4-10	.0	.0	.0	.0	.4	.4	.0	.0	.0	.0	.8	.8
	11-21	.0	.0	.0	.0	.2	.4	.0	.0	.0	.0	.6	.6
	22+	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1	.1
	TOT %	.0	.0	.0	.0	.7	.9	.0	.0	.0	.0	1.6	1.6
5<10	0-3	.0	.1	.0	.1	.2	.4	.1	.1	.0	.0	.9	.9
	4-10	.1	.1	.0	.7	3.1	4.4	1.0	.2	.0	.0	9.5	9.5
	11-21	.0	.0	.1	.4	2.3	1.8	.1	.0	.0	.0	4.7	4.7
	22+	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1	.1
	TOT %	.1	.1	.1	1.2	5.7	6.6	1.2	.2	.0	.0	15.2	15.2
10+	0-3	.3	.0	.0	.2	1.7	3.2	.5	.4	.0	1.2	7.5	7.5
	4-10	.0	.0	.0	1.4	15.3	24.9	4.4	.7	.0	.0	46.7	46.7
	11-21	.0	.0	.0	.8	12.3	14.2	1.0	*	.0	.0	28.2	28.2
	22+	.0	.0	.0	.0	.2	.3	.0	.0	.0	.0	.5	.5
	TOT %	.3	.0	.0	2.3	29.5	42.5	5.9	1.2	.0	1.2	83.0	83.0
TOT OBS													1654
TOT PCT		.4	.1	.1	3.5	35.9	50.2	7.1	1.4	.0	1.3	100.0	

PERIOD: (PRIMARY) 1930-1977
(OVER-ALL) 1879-1977

AUGUST

AREA 0034 GUAYACUIL
1.95 81.6W

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NH >4/8) AND
OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00003	.3	.9	7.1	24.3	28.3	9.5	2.5	.9	.6	.6	75.1	24.9	325
06009	1.2	.0	2.9	15.8	36.3	12.3	3.5	.0	.6	.6	73.1	26.9	171
12015	.0	1.5	10.9	25.5	30.9	9.4	4.2	1.2	1.2	.3	85.2	14.8	330
18021	.0	1.7	6.4	21.3	34.4	10.8	3.2	.3	1.2	.6	79.9	20.1	343
TOT	3	14	86	283	374	120	39	8	11	6	924	245	1169
PCT	.3	1.2	7.4	22.5	22.0	10.3	3.3	.7	.9	.5	79.0	21.0	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.2	.0	.2	.9	13.1	85.5	449
06009	.0	.0	.0	2.7	19.7	77.6	335
12015	.0	.0	.7	1.4	15.0	82.9	420
18021	.0	.0	.2	1.5	14.4	83.9	466
TOT	1	0	5	26	255	1383	1670
PCT	.1	.0	.3	1.6	15.3	82.8	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR
CEILING HGT (FEET, NH >4/8) BY HOUR

HOUR (GMT)	<150 450YD	<600 41	<1000 45	1000+ AND 5+	NH <5/8 AND 5+	TOTAL OBS
00003	.6	8.8	34.3	42.5	23.3	318
06009	1.2	4.1	21.2	52.4	26.5	170
12015	.0	12.6	39.7	46.5	13.8	325
18021	.0	8.2	30.0	50.5	19.4	340
TOT	4	104	376	547	230	1153
PCT	.3	9.0	32.6	47.4	19.9	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
85/89	.0	.0	.0	.0	.1	.0	.0	.0	1	.1
80/84	.0	.0	.0	.0	.1	.3	.0	.1	6	.4
75/79	.0	.0	.0	.0	.3	3.9	2.2	.4	92	6.8
70/74	.0	.0	.0	.1	.2	6.1	29.4	6.3	570	42.0
65/69	.0	.0	.0	.0	.4	1.4	25.6	17.2	604	44.5
60/64	.0	.0	.0	.0	.0	.0	1.7	4.4	83	6.1
TOTAL	0	0	0	1	14	159	798	384	1356	100.0
PCT	.0	.0	.0	.1	1.0	11.7	58.8	28.3		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
85/89	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0
80/84	.0	.0	.0	.1	.2	.1	.0	.0	.0	.0
75/79	.0	.0	.0	.3	3.0	3.0	.3	.0	.0	.2
70/74	.3	.2	.1	1.3	13.4	22.5	3.3	.5	.0	.5
65/69	.1	.0	.1	1.9	17.3	21.0	2.6	.8	.0	.7
60/64	.0	.0	.0	.5	3.4	1.9	.1	.1	.0	.0
TOTAL	.4	.2	.1	4.1	37.4	48.5	6.3	1.4	.0	1.3

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	81	78	75	70	65	63	61	69.8	562
06009	78	77	74	69	64	62	60	69.0	479
12015	82	77	74	69	64	63	60	69.1	520
18021	85	81	78	72	66	63	62	71.7	681
TOT	85	79	76	70	64	63	60	70.0	2242

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	.0	.5	8.5	61.7	29.3	86	389		
06009	.0	.0	.9	4.3	52.8	42.1	88	235		
12015	.0	.0	.5	6.0	56.5	37.0	87	386		
18021	.0	.3	2.0	24.1	61.5	12.2	83	395		
TOT	0	1	14	161	825	404	86	1405		

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PERIOD: (PRIMARY) 1930-1977
(OVER-ALL) 1873-1977

TABLE 17

AREA 0034 GUAYAQUIL
1.95 81.6WPCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	57 60	61 64	65 68	69 72	73 76	77 80	81 84	TOT	N FOG	NO FOG
14/16	.0	.0	.1	.0	.0	.0	.0	1	.0	.1
11/13	.0	.0	.1	.2	.1	.1	.1	6	.0	.5
9/10	.0	.0	.0	.1	.1	.1	.0	3	.0	.2
7/8	.0	.0	.2	.1	.0	.0	.1	4	.0	.3
6	.0	.1	.1	.2	.2	.1	.1	10	.0	.8
5	.0	.0	.1	.2	.3	.2	.0	10	.0	.8
4	.0	.1	.4	.5	.2	.0	.2	17	.0	1.3
3	.0	.2	.2	1.0	.5	.2	.0	28	.0	2.1
2	.0	.3	1.5	.8	1.0	.1	.1	50	.2	3.6
1	.0	.7	1.5	1.1	1.3	.3	.0	65	.0	4.9
0	.0	1.4	2.9	2.7	2.0	.5	.0	125	.2	9.3
-1	.1	.5	2.0	3.0	1.9	.2	.0	101	.1	7.6
-2	.0	.6	3.7	4.9	3.0	.2	.0	163	.3	12.1
-3	.0	.8	5.3	9.0	3.0	.2	.0	242	.1	18.3
-4	.0	.3	5.1	6.9	1.7	.2	.0	188	.0	14.3
-5	.0	.3	4.6	4.2	1.0	.2	.0	137	.2	10.2
-6	.0	.3	2.5	1.7	.5	.0	.0	67	.2	4.9
-7/-8	.0	.4	2.0	2.3	.2	.0	.0	64	.0	4.9
-9/-10	.0	.3	.7	.8	.1	.0	.0	24	.0	1.8
-11/-13	.0	.2	.5	.2	.0	.0	.0	11	.0	.8
-14/-16	.0	.0	.0	.1	.0	.0	.0	1	.0	.1
-17/-19	.0	.0	.1	.0	.0	.0	.0	1	.0	.1
TOTAL	1	85	442	526	227	31	6	1318	1.1	98.9
PCT	.1	6.4	33.5	39.9	17.2	2.4	.5	100.0	1.1	98.9

PERIOD: (OVER-ALL) 1963-1977

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	N						PCT	NE						PCT
	1-3	4-10	11-21	22-33	34-47	48+		1-3	4-10	11-21	22-33	34-47	48+	
<1	.2	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.2	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0

HGT	E						PCT	SE						PCT
	1-3	4-10	11-21	22-33	34-47	48+		1-3	4-10	11-21	22-33	34-47	48+	
<1	.0	.0	.2	.0	.0	.0	.1	.2	.1	.0	.0	.0	.0	.3
1-2	.0	.0	.1	.0	.0	.0	.0	.0	1.1	.3	.0	.0	.0	1.4
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.6	.4	.0	.0	.0	1.1
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.3	.4	.0	.0	.0	.7
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.0	.3	.0	.0	.0	.3	.2	2.2	1.1	.0	.0	.0	3.5

PERIOD: (OVER-ALL) 1963-1977

AUGUST

AREA 0034 GUAYAQUIL
1.95 81.6W

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.8	2.8	.5	.0	.0	.0	4.1	2.1	5.3	.6	.0	.0	.0	8.0
1-2	.0	7.1	3.3	.0	.0	.0	10.4	.2	8.8	2.9	.0	.0	.0	11.8
3-4	.5	7.7	5.9	.5	.0	.0	14.6	2.1	11.3	7.8	.4	.0	.0	21.5
5-6	.0	.9	3.0	.0	.0	.0	3.9	1.1	5.4	3.3	.0	.0	.0	9.8
7	.0	.3	1.1	.0	.0	.0	1.4	.0	1.4	1.8	.0	.0	.0	3.2
8-9	.0	.0	.2	.0	.0	.0	.2	.0	.2	.2	.0	.0	.0	.3
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.2
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.3	18.8	14.0	.5	.0	.0	34.5	5.4	32.4	16.7	.4	.0	.0	54.8

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.3	2.0	.0	.0	.0	.0	2.3	.0	.2	.0	.0	.0	.0	.2	
1-2	.2	1.2	.3	.0	.0	.0	1.6	.0	.4	.0	.0	.0	.0	.4	
3-4	.0	.6	.3	.0	.0	.0	.9	.0	.0	.0	.0	.0	.0	.0	
5-6	.1	.3	.0	.0	.0	.0	.4	.0	.0	.0	.0	.0	.0	.0	
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.6	4.1	.6	.0	.0	.0	5.3	.0	.2	.0	.0	.0	.0	.2	98.8

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	4.6	10.4	1.2	.0	.0	.0	16.3	
1-2	.3	18.2	0.8	.0	.0	.0	25.3	
3-4	2.6	20.2	14.4	.9	.0	.0	38.0	
5-6	1.4	7.0	6.7	.0	.0	.0	15.1	
7	.0	1.7	2.9	.0	.0	.0	4.6	
8-9	.0	.2	.3	.0	.0	.0	.5	
10-11	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.2	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	8.9	57.7	32.5	.9	.0	.0	100.0	584

PERIOD: (OVER-ALL) 1949-1977

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-7	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	7.5	9.8	23.8	8.6	1.4	.1	.2	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	480	3
6-7	.0	1.5	9.5	11.7	4.9	.9	.2	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	269	5
8-9	.0	.1	1.5	2.6	1.9	.9	.2	.0	.2	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	71	6
10-11	.0	.3	.4	.9	.2	.2	.8	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	27	6
12-13	.0	.0	.9	.6	.4	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	19	5
13	.0	.0	.0	.4	.1	.3	.0	.0	.1	.1	.0	.0	.1	.0	.0	.0	.0	.0	.0	11	10
INDET	.6	2.4	1.0	1.5	.2	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	35	3
TOTAL	76	131	346	245	86	25	13	.0	4	5	0	1	0	0	0	0	0	0	0	932	4
PCT	8.2	14.1	37.1	26.3	9.2	2.7	1.4	.0	.4	.5	.0	.0	.1	.0	.0	.0	.0	.0	.0	100.0	

SEPTEMBER

PERIOD: (PRIMARY) 1927-1977
(OVER-ALL) 1870-1977AREA 0034 GUAYAQUIL
1.85 81.4W

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THOR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
N	.0	.0	57.1	.0	.0	.0	.0	57.1	.0	.0	.0	.0	.0	.0	42.9
NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
E	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
SE	.0	2.4	8.6	.0	.0	.0	.0	11.0	1.9	.0	4.8	.0	.0	.5	81.9
S	.2	.6	3.1	.0	.0	.0	.0	4.0	.9	.0	.5	.0	.5	.2	93.9
SW	.2	.2	1.8	.0	.0	.0	.0	2.2	.8	.0	.4	.0	1.0	.0	95.7
W	.0	.0	3.8	.0	.0	.0	.0	3.8	1.9	.0	.0	.0	.0	.0	94.3
NW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
TOT PCT	.2	.4	2.8	.0	.0	.0	.0	3.3	1.0	.0	.6	.0	.7	.1	94.4
TOT OBS:	1259														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THOR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
00003	.0	.3	1.3	.0	.0	.0	.0	1.6	.3	.0	.0	.0	.3	.0	97.7
06009	.4	.8	5.3	.0	.0	.0	.0	6.5	1.6	.0	.4	.0	.0	.0	91.5
12015	.3	.3	4.0	.0	.0	.0	.0	4.5	2.0	.0	1.1	.0	.8	.0	91.5
18021	.0	.3	1.1	.0	.0	.0	.0	1.4	.3	.0	.6	.0	1.4	.3	96.1
TOT PCT	.2	.4	2.8	.0	.0	.0	.0	3.3	1.0	.0	.6	.0	.7	.1	94.3
TOT OBS:	1268														

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	48+					00	03	06	09	12	15	18	21
N	.1	.1	.0	.0	.0	.0		.2	2.8		.0	.0	.4	.4	.3	.0	.1	.0
NE	.0	.0	.0	.0	.0	.0		.0	2.0		.0	.0	.0	.9	.0	.0	.0	.0
E	.0	.1	.0	.0	.0	.0		.2	7.2		.0	.0	.0	.0	.2	.0	.6	.0
SE	.2	2.6	.7	.0	.0	.0		3.5	8.2		1.9	12.5	4.0	4.0	3.1	20.3	3.5	2.1
S	.9	19.2	14.6	.3	.0	.0		35.0	10.5		29.5	49.0	35.8	31.4	37.6	51.6	36.5	31.8
SW	1.8	29.7	18.9	.1	.0	.0		50.5	9.9		56.7	35.4	30.9	52.2	50.3	21.9	47.3	50.8
W	.6	6.8	1.7	.0	.0	.0		9.1	8.0		11.3	3.1	7.5	9.7	6.2	6.3	10.1	14.0
NW	.1	.5	.1	.0	.0	.0		.7	6.4		.1	.0	.8	.4	.4	.0	1.2	1.3
VAR	.0	.0	.0	.0	.0	.0		.0	.0		.0	.0	.0	.0	.0	.0	.0	.0
CALM	.8	.0	.0	.0	.0	.0		.8	.0		.5	.0	.6	.9	1.8	.0	.8	.0
TOT OBS	93	1203	733	11	0	0	2040		9.8		430	24	363	113	433	32	527	118
TOT PCT	4.6	59.0	35.9	.5	.0	.0	100.0				100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)					41+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)			
	0-6	7-16	17-27	28-40	00 03					06 09	12 15	18 21	
N	.2	.0	.0	.0	.0		.2	2.8	.0	.4	.3	.1	
NE	.0	.0	.0	.0	.0		.2	2.0	.0	.2	.0	.0	
E	.0	.1	.0	.0	.0		.2	7.2	.0	.0	.2	.5	
SE	1.5	1.9	.1	.0	.0		3.5	8.2	2.5	4.0	4.2	3.2	
S	6.5	25.2	3.2	.0	.0		35.0	10.5	30.5	34.8	38.5	35.6	
SW	11.0	36.3	3.2	.0	.0		50.5	9.9	55.6	51.2	48.3	47.9	
W	3.7	5.2	.2	.0	.0		9.1	8.0	10.8	8.0	6.2	10.8	
NW	.4	.3	.0	.0	.0		.7	6.4	.1	.7	.4	1.2	
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	
CALM	.8						.8	.0	.4	.6	1.7	.6	
TOT OBS	494	1409	137	0	0	2040		9.8	454	476	465	645	
TOT PCT	24.2	69.1	6.7	.0	.0		100.0		100.0	100.0	100.0	100.0	

SEPTEMBER

PERIOD: (PRIMARY) 1927-1977
(OVER-ALL) 1870-1977

AREA 0034 GUAYAQUIL
1.85 81.4W

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

WIND DIR	CALM	1-3	4-10	11-21	22-33	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
0000Z	.4	2.9	57.7	38.5	.4	.0	.0	9.9	100.0	454
0600Z	.6	2.9	56.5	39.3	.6	.0	.0	10.2	100.0	476
1200Z	1.7	6.7	61.1	29.9	.6	.0	.0	9.1	100.0	465
1800Z	.6	2.8	60.2	36.0	.5	.0	.0	9.9	100.0	645
TOT	17	76	1203	733	11	0	0	9.8		2040
PCT	.8	3.7	59.0	35.9	.5	.0	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBS	TOTAL OBS	MEAN CLOUD COVER
N	.0	.1	.0	.1		6.2
NE	.0	.0	.0	.0		.0
E	.0	.0	.1	.1		6.5
SE	.3	.1	.6	1.6		6.8
S	1.9	2.3	6.1	23.2		7.0
SW	3.8	4.0	10.3	35.0		6.8
W	.6	.6	1.8	6.0		6.9
NW	.1	.0	.2	.5		7.2
VAR	.0	.0	.0	.0		.0
CALM	.1	.0	.1	.5		7.0
TOT OBS	65	67	185	645	962	6.9
TOT PCT	6.8	7.0	19.2	67.0	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NM >4/8)
AND OCCURRENCE OF NM <5/8 BY WIND DIRECTION

	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NM <5/8 ANY HGT	TOTAL OBS
N	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.1	
NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
E	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.1	
SE	.1	.3	.2	.6	.5	.1	.0	.0	.0	.0	.6	
S	.0	.2	1.7	6.5	12.4	4.7	1.4	.1	.2	.1	6.4	
SW	.3	.4	4.4	9.1	17.5	6.1	1.5	.7	.2	.6	12.0	
W	.0	.1	1.8	1.7	2.0	1.3	.0	.1	.0	.0	1.9	
NW	.0	.0	.1	.0	.5	.1	.0	.0	.0	.0	.1	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.1	.1	.3	.0	.0	.0	.0	.0	.0	.1	
TOT OBS	4	8	81	170	321	123	31	9	3	7	205	962
TOT PCT	.4	.8	8.4	17.7	33.4	12.8	3.2	.9	.3	.7	21.3	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE
OF CEILING HEIGHT (NM >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)				OR			
	>10	>5	>2	>1	>1/2	>1/4	>50YD	>0
>6500	.8	1.0	1.0	1.0	1.0	1.0	1.0	1.0
>5000	1.5	2.0	2.0	2.0	2.0	2.0	2.0	2.0
>3500	4.0	5.2	5.2	5.2	5.2	5.2	5.2	5.2
>2000	15.6	18.0	18.0	18.0	18.0	18.0	18.0	18.0
>1000	44.1	51.0	51.4	51.4	51.4	51.4	51.4	51.4
>600	59.6	68.2	68.9	69.0	69.0	69.0	69.0	69.0
>300	66.4	76.5	77.3	77.4	77.4	77.4	77.4	77.4
>150	66.5	77.1	77.8	78.2	78.2	78.2	78.2	78.2
>0	66.8	77.4	78.1	78.5	78.5	78.5	78.5	78.5
TOTAL	647	749	756	760	760	760	760	760

TOTAL NUMBER OF OBSI 968

PCT FREQ NM <5/81 21.5

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	OBS	TOTAL OBS
4.4	3.5	4.2	4.7	4.3	3.1	6.1	11.4	58.3	.1	1047

PERIOD: (PRIMARY) 1927-1977
(OVER-ALL) 1870-1977

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AREA 0034 GUAYAQUIL
1.85 81.4W

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.2	
	TOT %	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.2	
1<2	PCP	.0	.0	.0	*	.1	.1	.1	.0	.0	.0	.4	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	*	.1	.1	.1	.0	.0	.0	.4	
2<5	PCP	.0	.0	.0	*	*	.0	.0	.0	.0	.0	.1	
	NO PCP	.0	.0	.0	.1	.4	.8	.2	.0	.0	.0	1.5	
	TOT %	.0	.0	.0	.1	.5	.8	.2	.0	.0	.0	1.6	
5<10	PCP	.1	.0	.0	.1	.8	.7	.1	.0	.0	.0	1.8	
	NO PCP	.0	.0	.1	1.6	6.0	7.5	1.0	.0	.0	.0	16.3	
	TOT %	.1	.0	.1	1.7	6.8	8.2	1.1	.0	.0	.1	18.1	
10+	PCP	.0	.0	.0	.3	.4	.3	.1	.0	.0	.0	1.1	
	NO PCP	.1	.0	.2	1.4	26.1	42.3	6.9	.6	.0	.6	78.6	
	TOT %	.1	.0	.2	2.1	26.6	42.6	6.9	.6	.0	.6	79.7	
TOT OBS													1256
TOT PCT		.1	.0	.2	4.2	34.0	51.8	8.4	.6	.0	.7	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.2	*	.0	.0	.0	.0	.0	.2	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.2	*	.0	.0	.0	.0	.0	.2	
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	*	.1	.2	.1	.0	.0	.0	.5	
	11-21	.0	.0	.0	.0	.0	*	*	.0	.0	.0	.1	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	*	.1	.2	.2	.0	.0	.0	.5	
2<5	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.1	.3	.8	.2	.0	.0	.0	1.5	
	11-21	.0	.0	.0	*	.1	.1	.0	.0	.0	.0	.3	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.2	.5	.9	.2	.0	.0	.0	1.7	
5<10	0-3	.1	.1	.0	.1	*	.1	.1	*	.0	.3	.9	
	4-10	.0	.0	.1	1.1	3.6	4.7	.7	.0	.0	.0	10.1	
	11-21	.0	.0	.0	.2	2.0	3.8	.1	.0	.0	.0	6.2	
	22+	.0	.0	.0	.0	.2	*	.1	.0	.0	.0	.3	
	TOT %	.1	.1	.1	1.4	5.8	8.6	1.1	*	.0	.3	17.5	
10+	0-3	.0	.0	.1	.1	.7	1.9	.6	*	.0	.7	4.1	
	4-10	*	.0	.1	1.3	12.5	24.4	5.9	.5	.0	.0	44.7	
	11-21	.0	.0	.0	.5	11.9	17.2	1.4	*	.0	.0	31.0	
	22+	.0	.0	.0	*	.2	.1	.0	.0	.0	.0	.3	
	TOT %	*	.0	.1	1.9	25.3	43.6	7.9	.5	.0	.7	80.1	
TOT OBS													1504
TOT PCT		.1	.1	.2	3.6	31.8	53.3	9.4	.6	.0	.9	100.0	

SEPTEMBER

PERIOD: (PRIMARY) 1927-1977
(OVER-ALL) 1870-1977

AREA 0034 GUAYAQUIL
1.85 81.4W

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NM >4/8) AND
OCCURRENCE OF NM <5/8 BY HOUR

HOURL (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NM <5/8 ANY MGT	TOTAL OBS
00003	.0	.0	8.1	14.6	36.0	11.7	3.6	.8	.4	1.2	76.5	23.5	247
06009	.6	1.8	3.0	17.5	33.7	16.9	3.6	.6	.6	.0	78.3	21.7	166
12015	.7	1.0	11.7	21.7	34.5	11.4	2.1	.7	.0	.7	84.5	15.5	290
18021	.4	.7	7.9	15.1	28.3	12.2	3.6	1.4	.4	.7	70.6	29.4	279
TOT	.4	.8	8.1	17.0	32.4	12.4	3.1	.9	.3	.7	76.1	22.1	982
PCT	.4	.8	8.2	17.3	33.0	12.6	3.2	.9	.3	.7	77.5	22.5	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOURL (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.0	.0	.3	1.4	13.9	84.5	367
06009	.0	.0	.0	1.5	19.9	78.7	342
12015	.0	.5	1.3	2.4	21.1	74.7	380
18021	.0	.2	.5	1.7	16.3	81.4	424
TOT	.0	.3	.8	2.6	26.8	120.8	1513
PCT	.0	.2	.5	1.7	17.7	79.8	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR
CEILING HGT (FEET, NM >4/8) BY HOUR

HOURL (GMT)	<150 <500	<600 <1	<1000 <5	1000+ AND 5+	NM <5/8 AND 5+	TOTAL OBS
00003	.0	8.2	23.5	54.3	22.2	243
06009	.6	5.5	23.8	55.5	20.7	164
12015	.3	13.3	35.3	50.0	14.7	286
18021	.4	9.1	25.1	46.5	28.4	275
TOT	.3	9.2	26.6	49.4	20.8	968
PCT	.3	9.5	27.5	51.0	21.5	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
85/89	.0	.0	.0	.1	.0	.0	.0	.0	1	.1
80/84	.0	.0	.1	.0	.3	.5	.1	.1	12	1.1
75/79	.0	.0	.0	.0	.5	3.9	2.2	.8	81	7.3
70/74	.0	.0	.0	.0	.3	7.0	30.4	7.9	504	45.3
65/69	.0	.0	.0	.0	.2	1.7	23.2	14.8	442	39.9
60/64	.0	.0	.0	.0	.0	.0	1.4	4.3	64	5.8
55/59	.0	.0	.0	.0	.0	.0	.1	.2	3	.3
TOTAL	.0	.0	.1	.1	1.3	14.6	63.5	31.1	1107	100.0
PCT	.0	.0	.1	.1	1.2	13.2	57.4	28.1		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.0	.0	.0	.0	.0	.0	.1	.0	.0	.0
.0	.0	.1	.0	.5	.4	.1	.0	.0	.0
.1	.0	.0	.1	1.7	4.7	.7	.0	.0	.0
.0	.0	.2	1.1	13.1	25.9	4.7	.3	.0	.3
.1	.0	.0	2.1	15.6	18.6	2.8	.3	.0	.5
.0	.0	.0	1.1	2.9	1.6	.1	.0	.0	.1
.0	.0	.0	.0	.3	.0	.0	.0	.0	.0
.2	.0	.3	4.3	34.0	51.2	8.4	.7	.0	.9

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOURL (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	84	78	75	70	65	63	61	70.2	454
06009	80	76	74	69	63	62	60	68.9	473
12015	82	78	74	69	64	60	58	69.3	463
18021	85	81	79	72	66	64	62	72.1	630
TOT	85	80	76	70	64	62	58	70.3	2020

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	.4	.7	10.9	63.1	24.8	85	274
06009	.0	.0	.0	4.2	47.7	48.1	88	216
12015	.0	.0	1.3	6.1	59.9	32.8	87	314
18021	.0	.3	2.5	28.7	56.1	12.4	82	314
TOT	0	2	14	148	640	314	85	1118

SEPTEMBER

PERIOD: (PRIMARY) 1927-1977
(OVER-ALL) 1870-1977

AREA 0034 GUAYAGUIL
1.85 81.4W

TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	57 60	61 64	65 68	69 72	73 76	77 80	81 84	TOT	W FOG	NO FOG
20/22	.0	.0	.0	.0	.1	.0	.0	1	.0	.1
14/16	.0	.0	.0	.0	.1	.0	.1	2	.0	.2
11/13	.0	.0	.0	.0	.0	.0	.1	1	.0	.1
9/10	.0	.0	.0	.2	.0	.0	.1	5	.0	.4
7/8	.0	.0	.1	.3	.1	.5	.3	16	.0	1.3
6	.0	.0	.0	.3	.1	.3	.1	8	.0	.7
5	.0	.0	.0	.3	.2	.3	.2	11	.0	.9
4	.1	.0	.0	.2	.6	.3	.0	14	.0	1.2
3	.0	.0	.3	.6	.3	.3	.0	19	.0	1.6
2	.0	.1	1.0	1.3	.3	.2	.0	34	.0	2.9
1	.0	.3	1.1	1.4	1.0	.2	.0	47	.0	3.9
0	.0	.8	2.2	2.8	1.8	.5	.0	96	.0	8.1
-1	.0	.8	1.5	3.0	1.6	.0	.0	83	.0	7.0
-2	.0	.3	2.8	4.5	3.9	.3	.0	141	.2	11.7
-3	.0	.6	3.2	6.2	4.5	.2	.0	174	.2	14.5
-4	.1	.4	4.1	7.4	2.3	.0	.0	170	.0	14.3
-5	.0	.5	3.5	6.4	1.8	.0	.0	146	.2	12.1
-6	.0	.7	3.2	2.9	.7	.1	.0	89	.0	7.5
-7/-8	.0	.7	3.7	2.9	.7	.0	.0	94	.1	7.8
-9/-10	.0	.2	1.5	.7	.1	.1	.0	30	.0	2.5
-11/-13	.0	.1	.2	.3	.0	.0	.0	7	.0	.6
-14/-16	.0	.1	.1	.0	.0	.0	.0	2	.0	.2
TOTAL	4	.3	339	493	241	10	10	1190	7	1183
PCT	.3	.5	28.5	41.4	20.3	3.2	.8	100.0	.6	99.4

PERIOD: (OVER-ALL) 1963-1977

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.0	.0	.0	.0	.0	.0	.2	1.2	.7	.0	.0	.0	2.1

PERIOD: (OVER-ALL) 1963-1977

SEPTEMBER

AREA 0034 GUAYAQUIL
1.85 81.4W

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.3	2.4	.1	.0	.0	.0	2.9	2.2	7.3	.2	.0	.0	.0	9.7
1-2	.3	5.0	2.3	.0	.0	.0	7.7	.2	10.4	3.2	.0	.0	.0	14.3
3-4	.1	4.9	8.1	.0	.0	.0	13.2	.2	7.0	9.8	.2	.0	.0	17.2
5-6	.0	.8	4.3	.1	.0	.0	5.3	1.0	5.8	4.5	.2	.0	.0	11.5
7	.0	.0	.6	.4	.0	.0	.9	.0	1.3	2.1	.0	.0	.0	3.4
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.4	.0	.0	.0	.4
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.8	13.2	15.5	.5	.0	.0	30.0	3.6	32.3	20.1	.4	.0	.0	56.5

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	1.2	3.5	.0	.0	.0	.0	4.7	.0	.1	.0	.0	.0	.0	.1	
1-2	.2	1.9	.1	.0	.0	.0	2.2	.0	.5	.0	.0	.0	.0	.5	
3-4	.0	1.2	.8	.0	.0	.0	2.0	.0	.2	.0	.0	.0	.0	.2	
5-6	.1	.3	.6	.0	.0	.0	1.0	.0	.0	.0	.0	.0	.0	.0	
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	1.5	6.9	1.5	.0	.0	.0	9.9	.0	.8	.0	.0	.0	.0	.8	99.2

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	4.5	13.3	.4	.0	.0	.0	18.2	
1-2	.9	19.2	6.0	.0	.0	.0	26.1	
3-4	.4	13.5	18.8	.2	.0	.0	32.9	
5-6	1.1	7.0	9.6	.4	.0	.0	18.0	
7	.0	1.2	2.6	.4	.0	.0	4.3	
8-9	.0	.0	.4	.0	.0	.0	.4	
10-11	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	7.0	54.3	37.8	.9	.0	.0	100.0	532

PERIOD: (OVER-ALL) 1949-1977

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	9.1	13.8	19.9	8.3	2.4	.4	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	458	3
6-7	.1	1.3	7.0	10.8	3.7	.8	.5	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	207	5
8-9	.1	1.1	2.9	2.6	1.9	.5	.1	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	79	5
10-11	.0	.4	.7	.5	.5	.6	.5	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	27	6
12-13	.0	.0	.6	1.5	.6	.2	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	27	6
>13	.0	.0	.0	.4	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	4	6
INDPT	.6	1.1	1.7	1.1	.7	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	46	4
TOTAL	84	149	278	213	83	23	14	1	2	1	0	0	0	0	0	0	0	0	0	848	4
PCT	9.9	17.6	32.8	25.1	9.8	2.7	1.7	.1	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	

PERIOD: (PRIMARY) 1932-1977
(OVER-ALL) 1868-1977

OCTOBER

AREA 0034 GUAYAQUIL
1.95 81.7W

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

PRECIPITATION TYPE										OTHER WEATHER PHENOMENA					
WIND DIR	RAIN	RAIN SHWK	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
N	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
E	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
SE	.0	2.8	3.3	.0	.0	.0	.0	6.0	.0	.0	1.9	.0	.0	.0	92.1
S	1.0	.6	2.8	.0	.0	.0	.0	4.4	2.1	.2	1.2	.0	.8	.0	91.3
SW	.6	.2	3.0	.0	.0	.0	.0	3.7	1.7	.0	.5	.0	1.5	.0	92.6
W	.0	.0	2.6	.0	.0	.0	.0	2.6	1.2	.0	1.8	.0	1.4	.0	92.9
NW	.0	.0	7.7	.0	.0	.0	.0	7.7	5.1	.0	1.3	.0	.0	.0	85.9
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
TOT PCT	.7	.4	2.9	.0	.0	.0	.0	4.0	1.8	.1	.9	.0	1.1	.0	92.2
TOT OBS:	1569														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHMR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST BLWG SNOW	NO SIG WEA
0000Z	.0	.5	1.2	.0	.0	.0	.0	1.6	.7	.0	.9	.0	.9	.0	95.8
0600Z	1.0	.0	5.6	.0	.0	.0	.0	6.6	2.1	.3	.7	.0	1.0	.0	89.2
1201Z	1.6	.7	5.2	.0	.0	.0	.0	7.0	3.5	.0	1.2	.0	.9	.0	87.3
1802Z	.2	.5	.9	.0	.0	.0	.0	1.6	.9	.0	.7	.0	1.6	.0	95.2
TOT PCT TOT OBS:	.7 1584	.4	3.0	.0	.0	.0	.0	4.0	1.8	.1	.9	.0	1.1	.0	92.2

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	0-3	WIND SPEED (KNOTS)					48+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)						
		4-10	11-21	22-33	34-47	00					03	06	09	12	15	18	21
N	*	.0	*	.0	.0	.0		.1	5.6	.0	.0	.0	.0	.2	.0	.1	.0
NE	.0	.1	.1	*	.0	.0		.2	12.6	.0	.0	.1	2.0	.1	2.5	.0	.4
E	.0	.1	.2	*	.0	.0		.3	14.0	.4	.0	.1	.4	.0	2.5	.3	.4
SE	.1	2.4	.9	.0	.0	.0		3.4	8.8	2.9	3.9	4.1	4.6	4.0	7.5	2.3	2.7
S	.7	18.7	16.0	.2	.0	.0		35.5	10.6	31.0	53.1	37.3	33.7	40.1	37.5	35.6	27.1
SW	1.6	26.8	21.7	.2	.0	.0		50.3	10.4	56.3	38.3	48.5	49.0	47.5	41.3	49.3	53.2
W	.7	5.0	2.4	.0	.0	.0		8.1	8.8	8.5	4.7	7.3	8.7	6.3	5.6	9.0	12.6
NW	.2	.8	.3	.0	.0	.0		1.3	8.1	.7	.0	2.1	1.6	.6	3.1	1.7	2.5
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.8							.8	.0	.2	.0	.5	.0	1.1	.0	1.8	.8
TOT OBS	96	1228	947	8	0	0		2279	10.2	324	32	393	124	476	40	571	119
TOT PCT	4.2	53.9	41.6	.4	.0	.0		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WMO DIR	0-6	WIND SPEED (KNOTS)				41+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)				
		7-16	17-27	28-40	00 03					06 09	12 15	18 21		
N	*	*	.0	.0	.0	.1	5.6	.0	.0	.2	.1			
NE	*	.1	.1	.0	.0	.2	12.6	*	.0	.3	.1			
E	.0	.2	.1	.0	.0	.3	14.0	.4	.2	.2	.3			
SE	.9	2.4	.1	.0	.0	3.4	8.8	2.9	4.2	4.3	2.4			
S	6.4	26.5	2.7	.0	.0	35.5	10.6	32.3	36.4	39.9	34.2			
SW	9.9	36.7	3.7	.0	.0	50.3	10.4	55.2	48.6	47.0	49.9			
W	2.6	5.2	.3	.0	.0	8.1	8.8	8.3	7.6	6.3	9.6			
NW	.5	.9	*.0	.0	.0	1.3	8.1	.6	2.0	.8	1.8			
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0			
CALM	.8					.8	.0	.2	.4	1.0	1.6			
TOT OBS	483	1640	136	0	0	2279	10.2	556	517	516	690			
TOT PCT	21.2	72.0	6.8	.0	.0		100.0	100.0	100.0	100.0	100.0			

PERIOD: (PRIMARY) 1932-1977
(OVER-ALL) 1808-1977

OCTOBER

AREA 0034 GUAYAQUIL
1.95 81.7W

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GHT)

WIND DIR	CALM	1-3	4-10	11-21	22-23	24-47	48+	MEAN	PCT FREQ	TOTAL OBS
00-03	.2	3.6	55.2	40.3	.7	.0	.0	10.2	100.0	336
06-09	.4	2.5	54.2	42.4	.6	.0	.0	10.5	100.0	517
12-15	1.0	4.3	55.0	39.7	.0	.0	.0	9.8	100.0	516
18-21	1.6	3.2	51.7	43.3	.1	.0	.0	10.3	100.0	690
TOT	19	77	1228	947	8	0	0	10.2		2279
PCT	.8	3.4	53.9	41.6	.4	.0	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	.0	.0	.0	.0	.0	.0
NE	.0	.0	.0	.0	.0	.0
E	.0	.0	.1	.1	7.1	.0
SE	.1	.1	.5	1.7	7.2	.0
S	2.2	2.1	7.4	23.2	6.9	.0
SW	2.9	3.8	10.4	35.4	7.0	.0
W	.5	.7	1.3	5.6	6.9	.0
NW	.1	.2	.1	.9	6.6	.0
VAR	.0	.0	.0	.0	.0	.0
CALM	.0	.1	.1	.4	7.2	.0
TOT OBS	70	85	241	819	1215	7.0
TOT PCT	5.8	7.0	19.8	67.4	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH > 4/8)
AND OCCURRENCE OF NH < 5/8 BY WIND DIRECTION

	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH < 5/8 ANY HGT	TOTAL OBS
N	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
E	.0	.0	.0	.0	.1	.1	.0	.0	.0	.0	.0	.0
SE	.0	.0	.0	.5	1.2	.2	.2	.0	.0	.0	.0	.3
S	.1	.1	1.7	5.5	14.0	5.3	1.1	.2	.0	.2	.6	6.9
SW	.1	.4	4.9	10.5	17.6	6.4	1.1	.3	.3	.3	10.6	6.9
W	.1	.1	.9	1.4	1.9	1.4	.3	.1	.1	.1	1.8	.5
NW	.0	.0	.0	.2	.4	.2	.0	.0	.0	.0	.0	.0
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT OBS	3	6	91	223	431	164	33	7	5	8	244	1215
TOT PCT	.2	.5	7.5	18.4	35.5	13.5	2.7	.6	.4	.7	20.1	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE
OF CEILING HEIGHT (NH > 4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)							
	> 10	> 5	> 2	> 1	> 1/2	> 1/4	> 50YD	> 0
> 4500	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
> 5000	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
> 3500	3.5	3.9	4.2	4.2	4.2	4.2	4.2	4.2
> 2000	15.8	17.2	17.7	17.7	17.7	17.7	17.7	17.7
> 1000	44.9	52.6	53.3	53.3	53.3	53.3	53.3	53.3
> 600	60.0	70.8	71.5	71.5	71.5	71.5	71.5	71.5
> 300	65.5	77.8	78.9	78.9	78.9	78.9	78.9	78.9
> 150	65.8	78.1	79.1	79.4	79.4	79.4	79.4	79.4
> 0	65.9	78.3	79.4	79.6	79.6	79.6	79.6	79.6
TOTAL	803	954	967	970	970	970	970	970

TOTAL NUMBER OF OBS: 1218

PCT FREQ NH < 5/8: 20.4

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	OBSCD	TOTAL OBS
5.6	2.9	3.2	3.2	4.7	4.3	7.3	11.0	37.7	.0	1324

PERIOD: (PRIMARY) 1932-1977
(OVER-ALL) 1865-1977

OCTOBER

AREA 0034 GUAYAGUIL
1.95 81.7W

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1<2	PCP	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.2	.2
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.2	.2
2<5	PCP	.0	.0	.0	.0	.4	.2	*	.0	.0	.0	.6	.6
	NO PCP	.0	.0	.0	.0	.3	.3	.1	*	.0	.0	.8	.8
	TOT %	.0	.0	.0	.0	.7	.5	.2	*	.0	.0	1.4	1.4
5<10	PCP	.0	.0	.0	*	.7	.8	.1	.1	.0	.0	1.7	1.7
	NO PCP	.0	.1	.1	1.1	6.1	8.4	1.4	.4	.0	.0	17.7	17.7
	TOT %	.0	.1	.1	1.1	6.7	9.2	1.6	.5	.0	.0	19.4	19.4
10+	PCP	.0	.0	.0	.1	.4	.7	*	.0	.0	.0	1.2	1.2
	NO PCP	.0	.0	.2	2.1	26.9	41.1	6.2	.8	.0	.6	77.8	77.8
	TOT %	.0	.0	.2	2.3	27.2	41.8	6.2	.8	.0	.6	79.0	79.0
TOT OBS		.0	.1	.3	3.4	34.6	51.7	8.0	1.3	.0	.6	100.0	1552
TOT PCT		.0	.1	.3	3.4	34.6	51.7	8.0	1.3	.0	.6	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	*	.1	.0	.0	.0	.0	.1	.1
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	*	.1	.0	.0	.0	.0	.1	.1
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1<2	0-3	.0	.0	.0	.0	*	.1	.0	.0	.0	.0	.1	.1
	4-10	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1	.1
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	*	.2	.0	.0	.0	.0	.2	.2
2<5	0-3	.1	.0	.0	.0	.0	.0	.0	.1	.0	.0	.1	.1
	4-10	.0	.0	.0	.0	.2	.5	.1	*	.0	.0	.8	.8
	11-21	.0	*	*	.0	.5	.3	.1	.0	.0	.0	1.0	1.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.1	*	*	.0	.7	.8	.2	.1	.0	.0	1.9	1.9
5<10	0-3	.0	.0	.0	.1	.1	.2	.2	.1	.0	.1	.8	.8
	4-10	.0	.0	.0	.7	3.4	5.0	1.0	.3	.0	.0	10.3	10.3
	11-21	.0	.1	.1	.2	2.7	4.1	.3	*	.0	.0	7.6	7.6
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.1	.1	1.0	6.2	9.3	1.3	.4	.0	.1	18.7	18.7
10+	0-3	.0	.0	.0	.0	.4	1.3	.6	.1	.0	.8	3.1	3.1
	4-10	.0	.1	.1	1.4	13.1	22.6	4.2	.4	.0	.0	42.0	42.0
	11-21	*	*	.1	.7	12.7	18.2	1.8	.3	.0	.0	33.8	33.8
	22+	.0	.0	.0	.0	*	.1	.0	.0	.0	.0	.2	.2
	TOT %	*	.1	.2	2.1	26.3	42.2	6.6	.8	.0	.8	79.1	79.1
TOT OBS		.1	.3	.3	3.1	33.2	52.6	8.3	1.2	.0	.9	100.0	1805
TOT PCT		.1	.3	.3	3.1	33.2	52.6	8.3	1.2	.0	.9	100.0	

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PERIOD: (PRIMARY) 1932-1977
(OVER-ALL) 1866-1977

AREA 0034 GUAYAQUIL
1.95 81.7M

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NM >4/8) AND
OCCURRENCE OF NM <5/8 BY HOUR

HR	000	150	300	600	1000	2000	3500	5000	6500	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
(GMT)	149	299	599	999	1999	3499	4999	6499	7999				
00003	.6	.3	7.6	19.6	34.5	13.5	2.6	.0	.6	.0	79.2	20.8	342
06009	.0	.0	4.6	16.8	37.2	16.8	3.6	.0	.0	1.0	80.1	19.9	196
12015	.0	1.5	10.4	18.9	37.0	9.6	1.5	1.2	.3	1.2	81.7	18.3	338
18021	.3	.0	5.8	16.7	32.8	14.7	3.3	.8	.6	.6	75.6	24.4	360
TOT	.5	.6	9.1	22.4	43.4	16.5	3.3	7	5	8	97.6	26.0	1236
PCT	.2	.5	7.4	18.1	35.1	13.3	2.7	.6	.4	.6	79.0	21.0	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HR	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
(GMT)							
00003	.0	.0	.0	.6	15.6	83.7	473
06009	.3	.0	.3	2.8	26.0	70.7	393
12015	.0	.0	.7	2.9	17.6	78.8	449
18021	.2	.0	.0	1.4	17.4	81.0	505
TOT	2	0	4	34	343	1437	1820
PCT	.1	.0	.2	1.9	18.8	79.0	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR
CEILING HGT (FEET, NM >4/8), BY HOUR

HR	<150 <50VD	<600 <1	<1000 <5	1000+ AND 5+	NH <5/8 AND 5+	TOTAL OBS
(GMT)						
00003	.6	8.4	29.0	51.3	19.7	335
06009	.0	4.7	22.3	58.5	19.2	193
12015	.0	12.0	31.9	50.5	17.5	332
18021	.3	6.1	23.2	52.5	24.3	358
TOT	3	99	329	641	248	1218
PCT	.2	8.1	27.0	52.6	20.4	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
85/89	.0	.0	.0	.1	.0	.0	.0	.0	1	.1
80/84	.0	.0	.0	.0	.2	.3	.2	.2	10	.8
75/79	.0	.0	.0	.0	.4	4.4	3.2	.5	113	8.5
70/74	.0	.0	.0	.0	.8	9.6	32.8	10.8	716	54.0
65/69	.0	.0	.0	.0	.1	1.1	21.6	11.2	451	34.0
60/64	.0	.0	.0	.0	.0	.2	.8	1.8	36	2.7
TOTAL	0	0	0	1	19	207	777	323	1327	100.0
PCT	.0	.0	.0	.1	1.4	15.6	58.6	24.3		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.4	1.3	0.0	0.1	0.0	0.0
0.0	0.0	1.1	2.2	5.3	.8	*	0.0	0.0	0.1
0.0	0.0	1.1	16.1	30.1	4.7	1.0	0.0	0.0	0.5
0.0	*	1.1	13.6	13.6	2.7	.3	0.0	0.0	0.2
0.0	0.0	1.1	1.9	.6	.0	0.0	0.0	0.0	0.0
0.0	*	.3	3.5	34.1	51.9	8.1	1.4	.0	.8

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HR	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
(GMT)									
00003	84	78	76	71	65	63	62	70.7	355
06009	82	78	75	70	65	63	62	70.1	314
12015	83	79	75	70	65	63	62	70.0	518
18021	86	83	79	73	67	64	63	72.9	684
TOT	86	81	77	71	65	63	62	71.1	2271

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HR	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
(GMT)										
00003	.0	.0	1.1	10.5	66.1	22.2	85	351		
06009	.0	.0	.0	5.8	32.9	41.3	87	259		
12015	.0	.0	.6	9.2	63.2	27.0	86	337		
18021	.0	.3	3.6	32.4	50.8	13.0	82	386		
TOT	0	1	20	208	778	326	85	1333		

PERIOD: (PRIMARY) 1932-1977
(OVER-ALL) 1808-1977

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TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	61 64	65 68	69 72	73 76	77 80	81 84	85 88	TOT	W FOG	WD FOG
17/19	.0	.0	.0	.0	.0	.1	.0	1	.0	.1
14/16	.0	.0	.0	.0	.1	.0	.1	2	.0	.1
11/13	.0	.0	.0	.0	.1	.1	.0	2	.0	.1
9/10	.0	.0	.1	.2	.1	.1	.0	8	.0	.5
7/8	.0	.0	.5	.7	.2	.1	.0	22	.0	1.5
6	.0	.3	.5	.3	.2	.0	.0	19	.0	1.3
5	.0	.2	.9	.5	.2	.3	.0	30	.0	2.0
4	.0	.4	1.1	.9	.5	.0	.0	45	.0	3.0
3	.1	.3	.7	.7	.2	.0	.0	31	.0	2.1
2	.3	1.4	1.0	.6	.4	.0	.0	55	.1	3.5
1	.0	.7	.8	1.0	.2	.0	.0	40	.1	2.6
0	.9	1.2	1.5	2.1	.6	.5	.0	100	.1	6.6
-1	.1	.9	2.6	3.8	.3	.0	.0	115	.1	7.6
-2	.5	2.1	5.9	3.0	.4	.1	.0	181	.2	11.9
-3	.1	2.6	8.3	3.2	.0	.0	.0	213	.1	14.1
-4	.3	2.9	8.5	5.7	.2	.0	.0	234	.1	15.5
-5	.1	3.5	6.1	1.3	.1	.0	.0	167	.1	11.1
-6	.1	1.9	3.9	.6	.0	.0	.0	97	.0	6.5
-7/-8	.1	2.4	3.3	.3	.0	.0	.0	93	.1	6.1
-9/-10	.2	1.1	.7	.1	.0	.0	.0	32	.0	2.1
-11/-13	.1	.2	.3	.0	.0	.0	.0	8	.0	.5
-14/-16	.1	.1	.1	.0	.0	.0	.0	4	.0	.3
TOTAL	45	334	701	345	56	17	1	1499	13	1486
PCT	3.0	22.3	46.8	23.0	3.7	1.1	.1	100.0	.9	99.1

PERIOD: (OVER-ALL) 1963-1977

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.1	.0	.0	.0	.0	.1	.0	.3	.3	.0	.0	.0	.6
3-4	.0	.0	.1	.0	.0	.0	.1	.0	.2	.8	.0	.0	.0	1.1
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1	.0	.0	.0	.2
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.1
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.1	.1	.0	.0	.0	.2	.0	.6	1.3	.0	.0	.0	1.9

PERIOD: (OVER-ALL) 1963-1977

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1.95 81.7W

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.2	1.2	.3	.0	.0	.0	1.7	1.4	6.8	.1	.0	.0	.0	8.4
1-2	.0	5.6	5.1	.0	.0	.0	10.8	.1	9.5	4.5	.0	.0	.0	14.2
3-4	.2	6.0	8.1	.0	.0	.0	14.3	.3	9.5	9.2	.0	.0	.0	19.0
5-6	.0	1.5	2.7	.0	.0	.0	4.3	.6	3.4	5.8	.0	.0	.0	9.8
7	.0	.2	.8	.1	.0	.0	1.1	.1	.7	1.4	.0	.0	.0	2.3
8-9	.0	.0	.4	.0	.0	.0	.4	.0	.1	.3	.1	.0	.0	.6
10-11	.0	.0	.1	.0	.0	.0	.1	.0	.0	.1	.0	.0	.0	.1
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.1	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.5	14.7	17.6	.1	.0	.0	32.9	2.6	30.1	21.5	.2	.0	.0	54.4

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.7	1.4	.0	.0	.0	.0	2.1	.0	.3	.0	.0	.0	.0	.3	
1-2	.1	2.6	1.3	.0	.0	.0	4.0	.0	.2	.2	.0	.0	.0	.4	
3-4	.4	.7	.5	.0	.0	.0	1.6	.0	.3	.0	.0	.0	.0	.3	
5-6	.1	.1	.1	.0	.0	.0	.4	.0	.0	.0	.0	.0	.0	.0	
7	.0	.1	.1	.0	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	1.3	5.0	2.0	.0	.0	.0	8.3	.0	.8	.2	.0	.0	.0	1.0	98.9

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	2.8	9.7	.4	.0	.0	.0	13.0	
1-2	.3	18.3	11.4	.0	.0	.0	30.0	
3-4	1.0	16.8	18.7	.0	.0	.0	36.5	
5-6	1.1	5.4	8.9	.0	.0	.0	15.2	
7	.3	1.1	2.4	.1	.0	.0	3.9	
8-9	.0	.1	.7	.1	.0	.0	1.0	
10-11	.0	.0	.3	.0	.0	.0	.3	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.1	.0	.0	.0	.0	.1	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	5.5	51.4	42.8	.3	.0	.0	100.0	710

PERIOD: (OVER-ALL) 1949-1977

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-7	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	6.3	12.9	21.5	4.4	1.5	.6	.1	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	564	3
6-7	.0	1.5	8.6	11.8	4.8	.7	.2	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	304	5
8-9	.0	.3	1.4	2.6	2.0	.7	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	77	5
10-11	.0	.3	.7	1.7	1.1	.3	.5	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	92	6
12-13	.0	.0	.9	.3	.4	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	20	5
>13	.0	.0	.0	.1	.3	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	6	7
INDET	.7	.5	3.3	2.1	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	74	3
TOTAL	77	169	399	295	112	30	10	4	1	0	0	0	0	0	0	0	0	0	0	1097	4
PCT	7.0	15.4	36.4	26.9	10.2	2.7	.9	.4	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	

PERIOD: (PRIMARY) 1935-1977
(OVER-ALL) 1854-1977

NOVEMBER

AREA 0034 GUAYAQUIL
2.05 81.6W

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							NO SIG WEA
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG SNOW	
N	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
E	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
SE	.0	.0	3.6	.0	.0	.0	.0	3.6	.0	.0	1.6	.0	4.0	.0	90.7
S	.1	.2	2.0	.0	.0	.0	.0	2.3	.4	.0	1.1	.0	2.3	.0	93.9
SW	.4	.0	1.1	.0	.0	.0	.0	1.5	.7	.0	.3	.0	1.6	.0	95.9
W	.0	.0	1.1	.0	.0	.0	.0	1.1	.0	.0	.0	.0	2.8	.0	96.0
NW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	5.9	.0	1.5	.0	92.6
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	20.0	.0	80.0
TOT PCT	.3	.1	1.5	.0	.0	.0	.0	1.8	.5	.0	.7	.0	2.1	.0	94.8
TOT OBS:	1590														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							NO SIG WEA
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG SNOW	
00003	.0	.0	.7	.0	.0	.0	.0	.7	.2	.0	.2	.0	2.0	.0	96.8
06009	.4	.0	1.8	.0	.0	.0	.0	2.1	.0	.0	.0	.0	1.8	.0	96.1
12015	.7	.0	2.4	.0	.0	.0	.0	3.1	1.3	.0	1.1	.0	2.9	.0	91.6
18021	.0	.2	1.1	.0	.0	.0	.0	1.3	.2	.0	1.1	.0	1.8	.0	95.5
TOT PCT	.3	.1	1.5	.0	.0	.0	.0	1.8	.5	.0	.7	.0	2.1	.0	94.9
TOT OBS:	1594														

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							48+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)						
	0-3	4-10	11-21	22-33	34-47	00	03					06	09	12	15	18	21	
N	.1	.1	.0	.0	.0	.0	.2	3.8	.0	.0	.2	.5	.2	.0	.3	.0		
NE	.0	.1	.1	.0	.0	.0	.2	9.4	.0	.0	.5	.5	.0	.0	.3	.0		
E	.0	.1	.0	.0	.0	.0	.1	8.6	.4	.0	.0	.0	.0	1.8	.1	.0		
SE	.3	2.6	1.2	.1	.0	.0	4.2	9.9	2.8	6.3	3.9	3.4	3.3	11.6	6.1	3.5		
S	1.3	19.9	19.0	.4	.0	.0	36.7	10.5	34.0	56.3	37.1	40.5	41.2	42.1	34.0	30.1		
SW	2.1	27.2	20.3	.3	.0	.0	49.9	10.1	53.0	30.4	49.2	41.1	48.8	36.6	50.6	49.8		
W	.4	4.3	1.8	.1	.0	.0	6.6	8.9	6.3	3.6	7.7	9.1	3.4	7.9	6.7	15.7		
NW	.2	.9	.1	.0	.0	.0	1.2	6.5	1.2	3.6	1.2	2.3	.9	.0	1.3	.0		
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
CALM	.9						.9	.0	.2	.0	.3	2.7	2.1	.0	.5	.9		
TOT OBS	119	1244	867	21	0	0	2251		492	28	369	110	515	41	583	113		
TOT PCT	5.3	55.3	38.5	.9	0	0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0		

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)					TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)				
	0-6	7-16	17-27	28-40	41+				00	03	06	12	18
N	.2	.0	.0	.0	.0		.2	3.8	.0	.3	.2	.2	
NE	.1	.1	.0	.0	.0		.2	9.4	.0	.5	.0	.0	.3
E	.0	.1	.0	.0	.0		.1	8.6	.4	.0	.0	.0	.1
SE	1.2	2.5	.5	.0	.0		4.2	9.9	3.0	3.8	3.9	5.7	
S	7.4	25.5	3.7	.1	.0		36.7	10.5	35.2	37.9	41.2	33.4	
SW	11.5	35.0	2.5	.0	.0		49.9	10.1	53.7	47.3	47.9	50.5	
W	2.4	3.8	.4	.0	.0		6.6	8.9	6.2	8.0	3.8	8.2	
NW	.6	.5	.0	.0	.0		1.2	6.5	1.3	1.4	.9	1.1	
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	
CALM	.9						.9	.0	.2	.8	2.0	.6	
TOT OBS	345	1522	182	2	0	2251		10.0	520	479	556	696	
TOT PCT	24.2	67.6	8.1	.1	.0		100.0		100.0	100.0	100.0	100.0	

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PERIOD: (PRIMARY) 1935-1977
(OVER-ALL) 1854-1977

AREA 0034 GUAYAQUIL
2.0S 81.6W

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

WIND DIR	CALM	1-3	4-10	11-21	22-33	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
0000Z	.2	5.6	56.5	36.9	.8	.0	.0	9.7	100.0	520
0600Z	.8	1.7	60.1	35.7	1.7	.0	.0	10.2	100.0	479
1200Z	2.0	6.7	54.5	36.3	.5	.0	.0	9.6	100.0	556
1800Z	.6	3.6	51.6	43.4	.9	.0	.0	10.5	100.0	696
TOT	20	99	1244	867	21	0	0	10.0		2251
PCT	.9	4.4	55.3	38.5	.9	.0	.0		100.0	

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBS	TOTAL OBS	MEAN CLOUD COVER
N	.0	.1	.0	.1		3.5
NE	.0	.0	.1	.1		6.5
E	.0	.0	.1	.1		7.0
SE	.4	.4	.8	1.7		6.3
S	4.6	2.8	9.5	18.9		6.3
SW	5.3	4.1	14.0	29.2		6.5
W	.8	.1	1.4	3.9		6.6
NW	.2	.3	.1	.3		4.7
VAR	.0	.0	.0	.0		.0
CALM	.2	.1	.2	.3		5.3
TOT OBS	146	101	334	699	1280	6.4
TOT PCT	11.4	7.9	26.1	54.6	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH > 4/8)
AND OCCURRENCE OF NH < 5/8 BY WIND DIRECTION

000	150	300	600	1000	2000	3500	5000	6500	8000+	NH < 5/8 ANY HGT	TOTAL
149	299	599	999	1999	3499	4999	6499	7999			OBS
.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.1	
.0	.0	.0	.0	.0	.1	.1	.0	.0	.0	.0	
.0	.0	.0	.1	.0	.0	.1	.0	.0	.0	.0	
.0	.1	.0	.3	1.1	.6	.2	.0	.0	.0	1.0	
.4	1.1	1.0	4.5	12.6	4.4	.6	.2	.6	.4	10.9	
.1	.4	4.0	7.0	16.1	5.4	1.2	.2	1.1	1.2	15.9	
.1	.1	1.0	.9	2.1	.4	.3	.0	.1	.0	1.4	
.0	.1	.0	.3	.0	.0	.0	.0	.0	.0	.5	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
.0	.0	.1	.2	.0	.0	.0	.0	.0	.0	.5	
.8	9	79	165	412	140	31	6	22	20	388	1280
.6	.7	6.2	12.9	32.2	10.9	2.4	.5	1.7	1.6	30.3	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE
OF CEILING HEIGHT (NH > 4/8) AND VSBY (NH)

CEILING (FEET)	= OR >10	= OR >5	= OR >2	= OR >1	= OR >1/2	= OR >1/4	= OR >50YD	= OR >0
= OR >6500	2.9	3.3	3.3	3.3	3.3	3.3	3.3	3.3
= OR >5000	3.3	3.7	3.7	3.7	3.7	3.7	3.7	3.7
= OR >3500	5.2	6.1	6.1	6.1	6.1	6.1	6.1	6.1
= OR >2000	14.3	17.0	17.0	17.0	17.0	17.0	17.0	17.0
= OR >1000	41.3	48.9	49.2	49.2	49.2	49.2	49.2	49.2
= OR >600	52.1	61.9	62.2	62.2	62.2	62.2	62.2	62.2
= OR >300	56.8	67.9	68.3	68.4	68.4	68.4	68.4	68.4
= OR >150	57.1	68.4	68.9	69.1	69.1	69.1	69.1	69.1
= OR >0	57.6	69.0	69.6	69.7	69.7	69.7	69.7	69.7
TOTAL	738	884	891	893	893	893	893	893

TOTAL NUMBER OF OBS: 1281

PCT FREQ NH < 5/8: 30.3

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	OBSCD	TOTAL OBS
9.5	4.4	6.2	4.4	5.6	5.5	7.2	10.8	46.2	.0	1356

PERIOD: (PRIMARY) 1935-1977
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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1<2	PCP	.0	.0	.0	.0	*	.1	.0	.0	.0	.0	.1	.1
	NO PCP	.0	.0	.0	*	*	.0	.0	.0	.0	.0	.1	.1
	TOT %	.0	.0	.0	*	.1	.1	.0	.0	.0	.0	.2	.2
2<5	PCP	.0	.0	.0	*	.1	.1	.0	.0	.0	.0	.3	.3
	NO PCP	.0	.0	.0	.0	.2	.3	.0	.0	.0	.0	.5	.5
	TOT %	.0	.0	.0	*	.3	.4	.0	.0	.0	.0	.8	.8
5<10	PCP	.0	.0	.0	.1	.3	.2	.1	.0	.0	.0	.7	.7
	NO PCP	.0	.0	.1	.9	6.2	7.8	.9	.2	.0	.2	16.3	16.3
	TOT %	.0	.0	.1	1.0	6.5	8.1	1.0	.2	.0	.2	17.0	17.0
10+	PCP	.0	.0	.0	.0	.3	.3	.0	.0	.0	.0	.6	.6
	NO PCP	.2	.1	*	2.8	30.2	42.1	4.6	.9	.0	.4	81.4	81.4
	TOT %	.2	.1	*	2.8	30.4	42.4	4.6	.9	.0	.4	82.0	82.0
TOT OBS													1578
TOT PCT		.2	.1	.1	3.9	37.3	51.0	5.6	1.1	.0	.6	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.0	*	*	.0	.0	.0	.1	.1
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	*	*	.0	.0	.0	.1	.1
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1<2	0-3	.0	.0	.0	*	*	.0	.0	.0	.0	.0	.1	.1
	4-10	.0	.0	.0	.0	.1	.1	.0	.0	.0	.0	.2	.2
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	*	.1	.1	.0	.0	.0	.0	.2	.2
2<5	0-3	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1	.1
	4-10	.0	.0	.0	*	.3	.2	.0	.0	.0	.0	.6	.6
	11-21	.0	.0	.0	.0	.1	.3	.0	.0	.0	.0	.4	.4
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	*	.4	.6	.0	.0	.0	.0	1.0	1.0
5<10	0-3	.0	.0	.0	.2	.3	.3	.1	*	.0	.2	1.1	1.1
	4-10	.0	.0	.1	.5	3.3	4.3	.5	.2	.0	.0	8.8	8.8
	11-21	.0	.0	.0	.2	2.5	3.5	.3	*	.0	.0	6.4	6.4
	22+	.0	.0	.0	.1	.1	.1	.0	.0	.0	.0	.2	.2
	TOT %	.0	.0	.1	.9	6.2	8.1	.9	.2	.0	.2	16.5	16.5
10+	0-3	.1	.0	.0	.1	1.1	1.9	.2	.1	.0	.7	4.2	4.2
	4-10	.1	.1	*	1.7	15.1	23.3	3.1	.7	.0	.0	44.2	44.2
	11-21	.0	.1	.0	.7	13.1	17.6	1.7	*	.0	.0	33.2	33.2
	22+	.0	.0	.0	.1	.3	.2	*	.0	.0	.0	.7	.7
	TOT %	.2	.1	*	2.6	29.7	43.1	5.1	.7	.0	.7	82.2	82.2
TOT OBS													1806
TOT PCT		.2	.1	.1	3.5	36.3	51.9	6.0	1.0	.0	.9	100.0	

PERIOD: (PRIMARY) 1935-1977
(OVER-ALL) 1854-1977

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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET) NM >4/8) AND
OCCURRENCE OF NM <3/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NM <3/8 ANY HGT	TOTAL OBS
00003	.6	.6	4.9	10.6	20.4	7.3	1.2	.8	2.1	.6	59.0	41.0	329
06009	.5	1.4	1.9	8.5	34.9	17.0	2.8	.0	.5	1.9	69.3	30.7	212
12015	.3	.8	8.7	15.6	36.0	11.1	3.2	.5	1.3	1.6	79.1	20.9	378
18021	1.0	.3	6.8	14.3	26.5	9.9	2.6	.5	2.3	2.1	66.2	33.8	385
TOT	8	9	79	107	412	140	32	6	22	20	895	409	1304
PCT	.6	.7	6.1	12.8	31.6	10.7	2.5	.5	1.7	1.5	68.6	31.4	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.0	.0	.0	1.3	15.9	82.8	447
06009	.0	.0	.0	.8	17.9	81.3	374
12015	.0	.0	.6	.8	16.5	82.0	478
18021	.2	.0	.2	1.0	15.9	82.8	511
TOT	1	0	4	18	298	1489	1810
PCT	.1	.0	.2	1.0	16.5	82.3	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR
CEILING HGT (FEET) NM >4/8) BY HOUR

HOUR (GMT)	<150 <300	<600 <1	<1000 <5	1000+ AND 5+	NM <3/8 AND 5+	TOTAL OBS
00003	.6	6.3	18.0	43.2	38.8	317
06009	.5	3.8	12.5	58.2	29.3	208
12015	.3	9.9	26.2	53.5	20.3	374
18021	1.0	8.1	22.5	44.2	33.2	382
TOT	8	96	267	627	387	1281
PCT	.6	7.5	20.8	48.9	30.2	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
85/89	.0	.0	.0	.0	.1	.0	.0	.1	3	.2
80/84	.0	.0	.0	.1	.4	.1	.1	.0	11	.8
75/79	.0	.0	.0	.1	.9	5.4	4.8	.4	163	11.6
70/74	.0	.0	.0	.1	.8	13.0	38.3	6.8	829	59.0
65/69	.0	.0	.0	.0	.1	2.1	17.0	7.7	378	26.9
60/64	.0	.0	.0	.0	.0	.1	.7	.7	21	1.5
55/59	.0	.0	.0	.0	.0	.0	.1	.0	1	.1
TOTAL	0	0	0	4	32	292	858	220	1406	100.0
PCT	.0	.0	.0	.3	2.3	20.8	61.0	15.6		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
85/89	.0	.0	.0	.0	.1	.1	.0	.0	.0	.0
80/84	.0	.0	.0	.0	.4	.4	.0	.0	.0	.0
75/79	.0	.0	.0	.5	4.3	5.9	.7	.2	.0	.0
70/74	.1	.1	.1	2.2	19.3	32.2	4.1	.5	.0	.4
65/69	.0	.0	.0	1.6	11.8	12.2	1.0	.1	.0	.1
60/64	.0	.0	.0	.0	1.0	.5	.0	.0	.0	.0
55/59	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0
TOT	.1	.1	.1	4.4	36.9	51.2	5.8	.9	.0	.5

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	81	78	76	71	66	64	62	71.0	519
06009	90	77	75	71	65	64	58	70.6	487
12015	82	78	75	71	66	64	62	70.8	548
18021	90	84	79	73	67	64	62	73.3	675
TOT	90	81	77	72	66	64	58	71.6	2229

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-39	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	.3	.5	10.4	73.0	15.8	84	366
06009	.0	.0	1.1	13.6	58.0	27.3	85	264
12015	.0	.0	.5	18.0	65.5	16.0	84	394
18021	.0	.7	6.1	37.3	48.4	7.4	80	407
TOT	0	4	32	297	875	223	83	1431

PERIOD: (PRIMARY) 1935-1977
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TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	57 60	61 64	65 68	69 72	73 76	77 80	81 84	85 88	TOT FOG	WD FOG
17/19	.0	.0	.0	.0	.0	.0	.0	.1	1	.1
14/16	.0	.0	.1	.1	.1	.1	.0	.1	6	.4
11/13	.0	.0	.0	.0	.4	.1	.0	.1	9	.6
9/10	.0	.0	.0	.1	.4	.1	.1	.1	11	.8
7/8	.0	.1	.1	1.2	.2	.2	.1	.0	28	1.9
6	.0	.0	.1	.5	.1	.1	.0	.0	11	.8
5	.0	.0	.3	.6	.3	.1	.0	.0	19	1.2
4	.0	.0	.5	.3	.8	.2	.1	.0	28	1.9
3	.0	.1	.3	.5	.4	.1	.0	.0	21	1.4
2	.0	.2	.5	1.1	1.0	.4	.1	.0	48	3.3
1	.0	.1	.8	1.2	1.4	.3	.1	.0	56	3.8
0	.0	.2	1.2	2.9	2.1	.5	.0	.0	101	6.8
-1	.0	.1	2.0	6.4	4.8	1.0	.0	.0	209	14.1
-2	.1	.2	1.8	8.4	6.4	.4	.0	.0	253	17.2
-3	.0	.1	2.1	9.4	4.4	.1	.0	.0	235	16.0
-4	.0	.1	2.8	6.4	2.1	.0	.0	.0	168	11.4
-5	.0	.3	2.6	4.0	1.2	.1	.0	.0	118	8.1
-6	.0	.1	1.2	2.0	.5	.0	.0	.0	55	3.7
-7/-8	.0	.3	1.1	2.1	.5	.0	.0	.0	58	4.0
-9/-10	.0	.1	.3	.8	.1	.0	.0	.0	21	1.4
-11/-13	.0	.0	.0	.2	.0	.0	.0	.0	3	.2
-14/-16	.0	.0	.1	.0	.0	.0	.0	.0	1	.1
-17/-19	.0	.0	.1	.0	.0	.0	.0	.0	1	.1
TOTAL	1	29	261	707	376	57	4	4	1461	1450
PCT	.1	2.0	17.9	48.4	27.1	3.9	.4	.3	100.0	99.2

PERIOD: (OVER-ALL) 1963-1977

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	N							PCT	NE							PCT
	1-3	4-10	11-21	22-33	34-47	48+			1-3	4-10	11-21	22-33	34-47	48+		
<1	.0	.1	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.1	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0

HGT	E							PCT	SE							PCT
	1-3	4-10	11-21	22-33	34-47	48+			1-3	4-10	11-21	22-33	34-47	48+		
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1
1-2	.0	.1	.0	.0	.0	.0	.0	.1	.1	1.0	.4	.0	.0	.0	.0	1.5
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.5	.5	.0	.0	.0	.0	1.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.5	.0	.0	.0	.0	.0	.5
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.5	.0	.0	.0	.0	.2
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.3	.0	.0	.0	.0	.0	.3	.1	1.6	1.4	.1	.0	.0	.0	3.3

PERIOD: (OVER-ALL) 1963-1977

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TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.7	1.0	.0	.0	.0	.0	1.7	1.5	6.3	.3	.0	.0	.0	8.1
1-2	.1	5.3	1.4	.0	.0	.0	6.8	.5	7.2	3.2	.0	.0	.0	10.9
3-4	.4	8.1	7.2	.1	.0	.0	15.8	1.6	13.0	9.7	.0	.0	.0	24.3
5-6	.1	2.9	3.6	.0	.0	.0	6.5	.4	2.8	5.8	.0	.0	.0	9.0
7	.0	.9	2.1	.1	.0	.0	3.0	.0	.3	1.0	.2	.0	.0	1.7
8-9	.0	.0	.1	.0	.0	.0	.1	.0	.0	.5	.0	.0	.0	.5
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.3	18.1	14.4	.2	.0	.0	34.0	4.1	29.8	20.4	.2	.0	.0	54.5

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.4	2.0	.0	.0	.0	.0	2.4	*	*	.0	.0	.0	.0	.1	
1-2	.0	1.0	.0	.0	.0	.0	1.0	.0	.5	.0	.0	.0	.0	.5	
3-4	.0	.5	1.0	.0	.0	.0	1.5	.0	.3	.0	.0	.0	.0	.3	
5-6	.0	.3	.0	.0	.0	.0	.3	.0	*	.0	.0	.0	.0	*	
7	.0	.1	.2	.0	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.4	3.9	1.9	.0	.0	.0	6.2	*	.8	.0	.0	.0	.0	.9	99.2

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	3.2	9.6	.3	.0	.0	.0	13.1	
1-2	.8	15.1	5.6	.0	.0	.0	21.4	
3-4	2.2	22.5	18.4	.1	.0	.0	43.1	
5-6	.6	6.0	9.9	.0	.0	.0	16.5	
7	.0	1.5	3.3	.4	.0	.0	5.2	
8-9	.0	.0	.6	.0	.0	.0	.6	
10-11	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	6.7	54.7	38.1	.5	.0	.0	100.0	788

PERIOD: (OVER-ALL) 1949-1977

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	7.8	10.1	23.4	9.3	4.1	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	624
6-7	.1	2.2	9.4	12.1	4.8	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	328
8-9	.0	.4	2.1	2.9	1.9	.4	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	92
10-11	.0	.0	.4	1.3	.7	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	29
12-13	.0	.0	.4	.4	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	12
>13	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0
INDET	.6	.8	1.5	1.1	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	47
TOTAL	96	153	421	307	134	17	4	0	0	0	0	0	0	0	0	0	0	0	0	0	1132
PCT	8.5	13.5	37.2	27.1	11.8	1.5	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0

PERIOD: (PRIMARY) 1929-1977
(OVER-ALL) 1868-1977

DECEMBER

AREA 0034 GUAYAQUIL
1.95 81.6W

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWK	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THOR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG SNOW	NO SIG WEA
N	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
E	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
SE	.0	.0	.0	.0	.0	.0	.0	.0	1.4	.0	2.2	.0	.0	.0	96.4
S	1.3	.0	.3	.0	.0	.0	.0	1.6	.8	.0	.6	.0	.8	.0	96.2
SW	.7	.0	.4	.0	.0	.0	.0	1.1	.4	.0	.2	.0	1.4	.0	96.8
W	.8	.0	.0	.0	.0	.0	.0	.8	.8	1.1	.0	.0	1.9	.0	95.3
NW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	5.6	.0	.0	.0	.0	.0	94.4
TOT PCT	.9	.0	.3	.0	.0	.0	.0	1.2	.8	.1	.4	.0	1.0	.0	96.5
TOT OBS:	1430														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWK	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THOR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG SNOW	NO SIG WEA
0003	.5	.0	.3	.0	.0	.0	.0	.8	.0	.0	.0	.0	.8	.0	98.5
0609	.4	.0	.8	.0	.0	.0	.0	1.1	.8	.4	1.1	.0	.8	.0	95.9
12015	2.0	.0	.2	.0	.0	.0	.0	2.2	2.0	.0	.5	.0	.5	.0	94.9
18021	.5	.0	.0	.0	.0	.0	.0	.5	.3	.0	.3	.0	2.2	.0	96.7
TOT PCT	.9	.0	.3	.0	.0	.0	.0	1.2	.8	.1	.4	.0	1.0	.0	96.5
TOT OBS:	1443														

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							48+	TOTAL OBS	PCT FREQ	MEAN SPQ	HOUR (GMT)					
	0-3	4-10	11-21	22-33	34-47	00	03					06	09	12	15	18	21
N	.1	.2	.1	.0	.0	.0	.4	7.2	.0	.0	.2	1.2	.8	.0	.3	.5	
NE	.0	.4	.0	.0	.0	.0	.4	5.2	.0	.0	.1	.0	1.3	2.5	.2	.0	
E	.0	.2	.0	.0	.0	.0	.2	5.7	.0	.0	.2	.0	.6	.0	.2	.0	
SE	.3	3.9	1.3	*	.0	.0	5.5	8.8	2.8	12.1	7.3	4.1	3.4	17.5	7.6	6.5	
S	1.9	21.0	15.9	.8	.0	.0	39.7	10.4	33.0	55.6	39.5	42.6	41.9	58.8	41.9	35.3	
SW	2.9	26.4	19.2	.3	.0	.0	44.9	9.5	53.2	26.6	43.3	43.0	43.9	21.3	41.4	49.1	
W	1.0	4.2	1.5	*	.0	.0	6.7	7.9	9.8	5.6	7.4	7.9	4.9	.0	5.1	7.0	
NW	.1	.8	.2	.0	.0	.0	1.0	7.1	.7	.0	1.1	.4	1.0	.0	1.6	1.6	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	1.3	.0	.0	.0	.0	.0	1.3	.0	.6	.0	.9	.8	2.2	.0	1.8	.0	
TOT OBS	165	1229	735	25	0	0	2154	9.5	500	31	351	121	490	40	514	107	
TOT PCT	7.7	57.1	34.1	1.2	0	0	100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)					TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)				
	0-6	7-16	17-27	28-40	41+				00	06	12	18	21
N	.2	.2	.0	.0	.0	.0	.4	7.2	.0	.5	.7	.3	
NE	.3	.1	.0	.0	.0	.0	.4	5.2	.0	.1	1.4	.2	
E	.1	.1	.0	.0	.0	.0	.2	5.7	.0	.2	.5	.2	
SE	1.7	3.6	.2	.0	.0	.0	5.5	8.8	3.3	6.5	4.5	7.4	
S	8.4	27.4	3.8	.1	.0	.0	39.7	10.4	34.3	40.3	43.2	40.7	
SW	12.3	30.0	2.5	.0	.0	.0	44.9	9.5	51.6	43.2	42.2	42.7	
W	2.6	3.7	.1	.0	.0	.0	6.7	7.9	9.5	7.5	4.6	5.4	
NW	.5	.5	.0	.0	.0	.0	1.0	7.1	.7	.9	.9	1.6	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	1.3	.0	.0	.0	.0	.0	1.3	.0	.6	.8	2.1	1.4	
TOT OBS	596	1412	143	3	0	2154	9.5		531	472	530	621	
TOT PCT	27.7	65.6	6.6	.1	.0	100.0			100.0	100.0	100.0	100.0	

DECEMBER

PERIOD: (PRIMARY) 1929-1977
(OVER-ALL) 1868-1977

AREA 0034 GUAYAQUIL
1.95 81.6W

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	11-21	22-33	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
00003	.6	6.6	58.4	33.0	1.5	.0	.0	9.6	100.0	531
06009	.8	4.9	56.8	36.0	1.5	.0	.0	9.9	100.0	472
12015	2.1	9.6	54.0	33.4	.9	.0	.0	9.0	100.0	530
18021	1.4	4.7	58.6	34.3	.6	.0	.0	9.5	100.0	621
TOT	27	138	1229	735	25	0	0	9.5		2154
PCT	1.3	6.4	57.1	34.1	1.2	.0	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBS	TOTAL OBS	MEAN CLOUD COVER
N	.0	.0	.1	.1		6.8
NE	.0	.0	.1	.1		7.8
E	.0	.0	.0	.2		8.0
SE	.7	.5	1.4	1.8		5.7
S	8.6	4.7	12.5	13.0		5.3
SW	7.2	5.9	16.7	17.7		5.7
W	1.2	1.0	2.2	2.2		5.4
NW	.1	.2	.6	.1		5.7
VAR	.0	.0	.0	.0		.0
CALM	.2	.1	.5	.5		6.2
TOT OBS	199	136	377	393	1105	5.5
TOT PCT	18.0	12.3	34.1	35.6	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8)
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH <5/8 ANY HGT	TOTAL OBS
N	.0	.0	.0	.0	.1	.0	.0	.1	.0	.0	.0	.0
NE	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0
E	.0	.0	.0	.0	.1	.1	.0	.0	.0	.0	.0	.0
SE	.0	.0	.0	.5	1.1	.5	.2	.1	.1	.0	1.8	
S	.1	.1	1.1	3.6	6.8	2.8	1.0	.7	.4	.7	21.7	
SW	.0	.4	1.5	4.8	8.3	3.8	1.4	.7	1.1	.9	24.6	
W	.0	.0	.7	.9	1.1	.2	.1	.0	.1	.1	3.4	
NW	.0	.0	.0	.0	.1	.0	.0	.0	.1	.2	.5	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.0	.0	.2	.0	.0	.2	.0	.0	.2	.7	
TOT OBS	1	5	37	110	195	82	32	18	20	22	583	1105
TOT PCT	.1	.5	3.3	10.0	17.6	7.4	2.9	1.6	1.8	2.0	52.8	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE
OF CEILING HEIGHT (NH >4/8) AND VSBY (NH)

CEILING (FEET)	VSBY (NH)				OR			
	>10	>5	>2	>1	>1/2	>1/4	>50YD	>0
OR >6500	3.2	3.8	3.8	3.8	3.8	3.8	3.8	3.8
OR >5000	4.7	5.3	5.4	5.4	5.4	5.4	5.4	5.4
OR >3500	7.2	8.2	8.3	8.3	8.3	8.3	8.3	8.3
OR >2000	13.6	15.5	15.7	15.7	15.7	15.7	15.7	15.7
OR >1000	30.3	33.1	33.3	33.3	33.3	33.3	33.3	33.3
OR >600	39.4	43.0	43.2	43.2	43.2	43.2	43.2	43.2
OR >300	42.3	46.4	46.7	46.7	46.7	46.7	46.7	46.7
OR >150	42.6	46.8	47.2	47.2	47.2	47.2	47.2	47.2
OR >0	42.7	46.9	47.3	47.3	47.3	47.3	47.3	47.3
TOTAL	474	521	525	525	525	525	525	525

TOTAL NUMBER OF OBS: 1110

PCT FREQ NH <5/8: 52.7

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

	0	1	2	3	4	5	6	7	8	OBS	TOTAL OBS
	16.0	9.3	9.4	9.1	8.2	6.4	7.8	9.8	23.9	.0	1178

PERIOD: (PRIMARY) 1929-1977
(OVER-ALL) 1868-1977

DECEMBER

AREA 0034 GUAYAGUIL
1.95 81.6W

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.0	.0	*	.1	.0	.0	.0	.0	.1
	TOT %	.0	.0	.0	.0	.0	*	.1	.0	.0	.0	.0	.1
1<2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2<5	PCP	.0	.0	.0	.0	.1	.1	.0	.0	.0	.0	.0	.1
	NO PCP	.0	.0	.0	.0	.3	*	.1	.0	.0	.0	.0	.4
	TOT %	.0	.0	.0	.0	.4	.1	.1	.0	.0	.0	.0	.5
5<10	PCP	.0	.0	.0	.0	.2	.2	.1	.0	.0	.0	.0	.5
	NO PCP	.0	.0	.1	1.2	4.0	5.2	.7	*	.0	.1	11.2	.0
	TOT %	.0	.0	.1	1.2	4.2	5.4	.7	*	.0	.1	11.7	.0
10+	PCP	.0	.0	.0	.0	.4	.1	.0	.0	.0	.0	.0	.5
	NO PCP	.3	.5	.1	3.7	34.3	40.8	5.5	.9	.0	1.1	87.2	.0
	TOT %	.3	.5	.1	3.7	34.7	40.9	5.5	.9	.0	1.1	87.7	.0
TOT OBS													1426
TOT PCT		.3	.5	.2	4.9	39.2	46.4	6.3	1.0	.0	1.3	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.1	.0
	4-10	.0	.0	.0	.0	.0	*	*	.0	.0	.0	.1	.0
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	*	.1	.0	.0	.0	.1	.0
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2<5	0-3	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1	.0
	4-10	.0	.0	.0	.1	.3	.1	*	.0	.0	.0	.6	.0
	11-21	.0	.0	.0	.0	.0	*	.0	.0	.0	.0	.1	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.1	.4	.2	*	.0	.0	.0	.7	.0
5<10	0-3	.0	.0	.0	.0	.3	.5	.2	*	.0	.2	1.2	.0
	4-10	.0	.0	.1	1.0	1.9	3.2	.5	.0	.0	.0	6.7	.0
	11-21	.0	.0	.0	.0	1.7	2.2	.1	.0	.0	.0	3.9	.0
	22+	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1	.0
	TOT %	.0	.0	.1	1.0	4.0	5.9	.7	*	.0	.2	11.9	.0
10+	0-3	.0	.0	.0	.2	1.8	2.9	.8	.2	.0	1.2	7.0	.0
	4-10	.2	.5	.2	2.5	17.7	23.4	3.4	.7	.0	.0	48.5	.0
	11-21	.1	.0	.0	.9	13.6	14.6	1.7	.1	.0	.0	31.0	.0
	22+	.0	.0	.0	.0	.4	.3	*	.0	.0	.0	.8	.0
	TOT %	.3	.5	.2	3.6	33.5	41.2	6.0	1.0	.0	1.2	87.2	.0
TOT OBS													1599
TOT PCT		.3	.5	.2	4.7	38.0	47.2	6.8	1.0	.0	1.4	100.0	

DECEMBER

PERIOD: (PRIMARY) 1929-1977
(OVER-ALL) 1868-1977

AREA 0034 GUAYAQUIL
1.95 81.6W

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NH >4/8) AND
OCCURRENCE OF NH <5/8 BY HOUR

HR	000	150	300	600	1000	2000	3500	5000	6500	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
(GMT)	149	299	599	999	1999	3499	4999	6499	7999				
00003	.0	.3	3.4	9.5	13.7	4.3	3.0	1.2	2.7	2.7	40.9	59.1	328
06009	.5	.5	3.2	9.6	19.3	9.1	2.1	1.6	2.7	2.1	50.8	49.2	187
12015	.0	.3	3.9	13.8	23.4	9.3	2.7	1.8	.6	1.5	57.2	42.8	334
18021	.0	1.0	2.7	5.5	12.7	6.9	3.1	1.7	1.4	1.4	36.4	63.6	291
TOT	1	6	38	111	196	82	32	18	20	22	526	614	1140
PCT	.1	.5	3.3	9.7	17.2	7.2	2.8	1.6	1.8	1.9	46.1	53.9	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HR	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL
(GMT)							OBS
00003	.0	.0	.0	.5	9.9	89.6	433
06009	.0	.3	.0	.9	15.2	83.6	336
12015	.0	.2	.0	.9	10.1	88.8	436
18021	.0	.0	.0	.5	14.5	85.0	407
TOT	0	2	0	11	197	1402	1612
PCT	.0	.1	.0	.7	12.2	87.0	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR
CEILING HGT (FEET, NH >4/8), BY HOUR

HR	<150 <500	<600 <1	<1000 <5	1000+ AND 5+	NH <5/8 AND 5+	TOTAL
(GMT)						OBS
00003	.0	3.8	13.8	28.3	57.9	318
06009	.6	4.4	15.5	37.6	47.0	181
12015	.0	4.3	18.7	39.9	41.4	326
18021	.0	3.9	9.5	27.7	62.8	285
TOT	1	45	160	367	583	1110
PCT	.1	4.1	14.4	33.1	52.5	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL	PCT
									OBS	FREQ
90/94	.0	.0	.0	.0	.1	.0	.0	.0	1	.1
85/89	.0	.0	.1	.1	.2	.2	.0	.0	6	.5
80/84	.0	.0	.1	.0	.6	.7	.5	.2	25	2.1
75/79	.0	.0	.0	.1	.3	10.1	14.9	3.5	351	28.9
70/74	.0	.0	.0	.0	.2	9.6	35.7	11.2	687	56.6
65/69	.0	.0	.0	.0	.0	.3	7.2	4.1	141	11.6
60/64	.0	.0	.0	.0	.0	.0	.0	.2	2	.2
TOTAL	0	0	2	2	16	253	707	233	1213	100.0
PCT	.0	.0	.2	.2	1.3	20.9	58.3	19.2		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
90/94	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0
85/89	.0	.0	.0	.1	.1	.2	.1	.0	.0	.0
80/84	.0	.0	.0	.8	.8	1.0	.2	.0	.0	.0
75/79	.1	.1	.1	1.3	9.6	14.6	2.1	.5	.0	.7
70/74	.1	.0	.0	3.3	22.6	26.0	3.5	.3	.0	.6
65/69	.2	.1	.1	1.0	6.2	3.5	.4	.1	.0	.2
60/64	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0
TOTAL	.3	.1	.1	6.0	39.4	45.5	6.3	.9	.0	1.4

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HR	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL
(GMT)									OBS
00003	82	79	77	73	67	65	62	72.7	335
06009	81	78	77	73	67	66	64	72.5	476
12015	89	80	78	73	68	66	65	72.6	333
18021	91	85	81	75	69	68	66	75.2	622
TOT	91	83	79	73	68	66	62	73.4	2166

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HR	0-29	30-39	60-69	70-79	80-89	90-100	MEAN	TOTAL
(GMT)								OBS
00003	.0	.0	.0	15.1	61.5	23.4	85	338
06009	.0	.0	.0	16.7	57.7	25.6	85	246
12015	.0	.0	.3	12.1	66.8	20.8	85	331
18021	.0	1.2	5.2	38.3	46.0	9.3	80	324
TOT	0	4	18	256	720	241	84	1239

PERIOD: (PRIMARY) 1929-1977
(OVER-ALL) 1868-1977

DECEMBER

AREA 0034 GUAYAQUIL
1.95 81.6W

TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	61 64	65 68	69 72	73 76	77 80	81 84	85 88	89 92	TOT	W FOG	MO FOG
17/19	.0	.0	.0	.0	.0	.0	.0	.1	1	.0	.1
14/16	.0	.0	.0	.1	.0	.2	.1	.0	4	.0	.3
11/13	.0	.0	.0	.1	.0	.0	.1	.1	3	.0	.2
9/10	.0	.0	.1	.2	.2	.1	.1	.0	8	.0	.6
7/8	.0	.0	.2	.2	.5	.5	.0	.0	19	.0	1.4
6	.0	.0	.4	.1	.1	.2	.1	.0	10	.0	.8
5	.1	.0	.2	.3	.5	.2	.0	.0	16	.0	1.2
4	.0	.2	.1	.3	.9	.2	.0	.0	22	.0	1.7
3	.0	.0	.2	1.0	.7	.2	.0	.0	27	.0	2.0
2	.0	.4	1.0	2.3	1.1	.0	.0	.0	63	.0	4.8
1	.1	.6	2.0	2.9	1.5	.1	.0	.0	95	.0	7.2
0	.0	.9	3.5	5.4	3.6	.2	.0	.0	179	.2	13.4
-1	.0	.8	4.4	6.9	2.8	.0	.0	.0	197	.0	14.9
-2	.0	1.0	5.3	8.5	1.1	.0	.0	.0	210	.1	15.8
-3	.0	.5	5.7	6.7	.4	.0	.0	.0	176	.2	13.1
-4	.0	.6	4.8	3.3	.5	.0	.0	.0	122	.1	9.1
-5	.0	.7	3.6	1.8	.2	.0	.0	.0	84	.0	6.3
-6	.0	1.4	1.1	.7	.0	.0	.0	.0	42	.0	3.2
-7/-8	.0	1.1	.5	1.4	.0	.0	.0	.0	39	.0	2.9
-9/-10	.0	.1	.3	.2	.0	.0	.0	.0	8	.0	.6
TOTAL	2	110	440	559	188	4	2	2	1325	.6	1319
PCT	.2	8.3	33.2	42.2	14.2	1.5	.3	.2	100.0	.5	99.5

PERIOD: (OVER-ALL) 1963-1977

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
41	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.2
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.2	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.2	.0	.0	.0	.0	.2	.0	.2	.0	.0	.0	.0	.2

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
41	.0	.0	.0	.0	.0	.0	.0	.0	.3	.0	.0	.0	.0	.3
1-2	.0	.3	.0	.0	.0	.0	.3	.1	.7	.2	.0	.0	.0	1.5
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.2	.4	.0	.0	.0	.6
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.3	.0	.0	.0	.0	.3	.1	2.5	.9	.0	.0	.0	3.4

PERIOD: (OVER-ALL) 1963-1977

DECEMBER

AREA 0034 GUAYAQUIL
1.95 81.6W

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	S							PCT	SW							PCT
	1-3	4-10	11-21	22-33	34-47	48+			1-3	4-10	11-21	22-33	34-47	48+		
<1	1.5	1.8	.0	.0	.0	.0		3.3	2.9	6.2	.0	.0	.0	.0		9.0
1-2	.8	6.0	4.7	.0	.0	.0		11.5	.3	8.4	3.7	.0	.0	.0		12.4
3-4	.4	6.2	7.8	.8	.0	.0		19.1	.4	7.9	6.2	.0	.0	.0		14.5
5-6	.0	1.3	4.9	.2	.0	.0		8.4	.2	2.6	5.8	.2	.0	.0		8.7
7	.0	.7	1.4	.3	.0	.0		2.4	.2	.7	1.5	.2	.0	.0		2.6
8-9	.0	.0	.0	.2	.0	.0		.2	.0	.0	.0	.0	.0	.0		.0
10-11	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
12	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
13-16	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
17-19	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
20-22	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
23-25	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
26-32	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
33-40	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
41-48	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
49-60	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
61-70	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
71-86	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
87+	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
TOT PCT	2.6	16.0	18.8	1.4	.0	.0		38.9	3.9	25.8	17.2	.4	.0	.0		47.2

HGT	W							PCT	NW							PCT	TOTAL PCT
	1-3	4-10	11-21	22-33	34-47	48+			1-3	4-10	11-21	22-33	34-47	48+			
<1	.9	1.4	.0	.0	.0	.0		2.4	.2	.2	.0	.0	.0	.0		.5	
1-2	.0	1.7	.9	.0	.0	.0		2.0	.0	.2	.0	.0	.0	.0		.2	
3-4	.0	1.1	1.4	.0	.0	.0		2.5	.0	.8	.1	.0	.0	.0		.2	
5-6	.0	.0	.3	.0	.0	.0		.3	.0	.2	.0	.0	.0	.0		.2	
7	.2	.0	.0	.0	.0	.0		.2	.0	.0	.0	.0	.0	.0		.0	
8-9	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
10-11	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
12	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
13-16	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
17-19	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
20-22	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
23-25	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
26-32	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
33-40	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
41-48	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
49-60	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
61-70	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
71-86	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
87+	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
TOT PCT	1.1	4.2	2.0	.0	.0	.0		7.3	.2	.6	.1	.0	.0	.0		.9	98.4

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	7.0	10.1	.0	.0	.0	.0	17.1	
1-2	1.1	17.9	8.8	.0	.0	.0	27.8	
3-4	.8	16.7	15.8	.8	.0	.0	33.5	
5-6	.2	4.3	11.4	.3	.0	.0	16.1	
7	.5	1.4	3.0	.5	.0	.0	5.4	
8-9	.0	.0	.0	.2	.0	.0	.2	
10-11	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	9.5	49.8	39.0	1.7	.0	.0	100.0	633

PERIOD: (OVER-ALL) 1949-1977

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	9.0	15.0	23.2	10.2	1.3	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	569	3
6-7	.0	1.2	8.7	8.3	2.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	196	4
8-9	.0	.5	1.7	3.7	2.4	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	82	5
10-11	.0	.7	1.0	.6	.3	.2	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	30	4
12-13	.0	.0	1.0	.6	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	18	4
13-14	.0	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	9	5
INDPT	1.2	1.6	1.9	1.2	.4	.0	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	66	3
TOTAL	9.0	18.4	36.2	24.1	6.3	.6	.8	1.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	964	3
PCT	10.3	19.1	37.6	25.0	6.5	.6	.8	1.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	

PERIOD: (PRIMARY) 1927-1978
(OVER-ALL) 1854-1978

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TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							NO SIG WEA
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FGG WQ PCPN	FGG WQ PCPN PAST HR	SMOKE HAZE	SPRAY BLWG JUST	
N	2.9	.2	8.4	.0	.0	.0	.0	11.5	.7	.4	1.0	.0	.5	.0	77.6
NE	2.0	.1	.3	.0	.0	.0	.0	2.4	.5	.3	5.4	.0	9.8	.0	73.3
E	.6	2.3	.6	.0	.0	.0	.0	3.6	4.0	.5	.8	.0	8.6	.0	82.6
SE	.7	1.2	2.6	.0	.0	.0	.0	4.4	1.4	.5	3.6	.0	.8	.0	89.3
S	.8	.5	1.6	.0	.0	.0	.0	2.9	1.1	.2	.9	.0	1.5	.0	93.4
SW	.6	.3	1.3	.0	.0	.0	.0	2.2	1.2	.2	.4	.0	1.4	.0	94.6
W	.4	.2	1.3	.0	.0	.0	.0	1.9	.9	.4	.3	.0	2.1	.0	94.3
NW	1.0	1.0	2.6	.0	.0	.0	.0	4.6	1.0	.2	.8	.0	.9	.0	92.5
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.8	.4	1.9	.0	.0	.0	.0	3.0	2.4	.5	.3	.0	5.0	.0	87.9
TOT PCT	.8	.5	1.6	.0	.0	.0	*	2.8	1.2	.3	.9	.0	1.6	*	93.2
TOT OBS: 17824															

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							NO SIG WEA
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FGG WQ PCPN	FGG WQ PCPN PAST HR	SMOKE HAZE	SPRAY BLWG JUST	
00003	.3	.2	.7	.0	.0	.0	.0	1.3	.5	.4	.6	.0	1.3	*	95.8
06009	1.0	.6	2.4	.0	.0	.0	.0	4.0	1.1	.8	1.3	.0	1.1	.0	91.8
12015	1.8	.7	2.8	.0	.0	.0	*	5.2	2.7	.1	.8	.0	1.5	.0	89.7
18021	.3	.4	.6	.0	.0	.0	*	1.3	.6	*	.9	.0	2.1	*	95.1
TOT PCT	.8	.5	1.6	.0	.0	.0	*	2.9	1.2	.3	.9	.0	1.6	*	93.2
TOT OBS: 18147															

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							48+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)					
	0-3	4-10	11-21	22-33	34-47	00	03					06	09	12	15	18	21
N	.4	.7	.1	*	.0	.0		1.2	5.5	.9	.6	1.1	1.5	1.0	1.2	1.7	1.6
NE	.3	.7	.1	*	.0	.0		1.1	6.1	.6	3.1	.8	2.2	1.3	2.3	1.2	.9
E	.3	.9	.1	*	.0	.0		1.3	7.7	.7	2.7	1.1	2.0	1.3	2.8	1.5	1.0
SE	.8	4.9	1.1	*	.0	.0		6.7	8.1	4.8	16.6	6.6	5.7	6.3	15.9	8.0	5.8
S	2.5	20.2	11.3	.3	.0	.0		34.3	9.3	29.9	42.3	35.6	32.2	38.7	42.5	34.8	27.2
SW	3.2	25.2	12.6	.2	*	.0		41.2	8.8	46.7	27.9	40.9	41.0	39.9	29.6	38.7	44.1
W	1.2	5.9	1.3	*	.0	.0		8.4	7.4	12.4	4.1	7.8	7.8	4.7	3.9	8.2	13.8
NW	.4	1.4	.1	.0	.0	.0		1.9	6.3	2.0	1.0	2.1	2.1	1.3	.7	2.2	3.2
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	3.7							3.7	.0	2.0	1.7	4.0	5.5	5.4	1.1	3.7	2.5
TOT OBS							26258		8.4	5747	356	4372	1385	5696	465	6778	1459
TOT PCT	12.9	59.9	26.7	.6	*	.0		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)					TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)			
	0-6	7-16	17-27	28-40	41+				00	06	12	18
N	.8	.4	*	.0	.0		1.2	5.5	.9	1.2	1.0	1.7
NE	.7	.3	*	.0	.0		1.1	6.1	.7	1.2	1.4	1.1
E	.9	.4	*	.0	.0		1.3	7.7	.9	1.3	1.5	1.4
SE	3.0	2.5	.1	*	.0		6.7	8.1	5.5	6.4	7.1	7.6
S	9.9	22.3	2.2	*	.0		34.3	9.3	30.6	34.8	38.9	33.4
SW	12.6	26.5	2.1	*	*		41.2	8.8	45.6	40.9	39.2	39.6
W	4.3	4.0	.1	*	.0		8.4	7.4	11.9	7.8	4.6	9.2
NW	1.2	.7	*	.0	.0		1.9	6.3	2.0	2.1	1.3	2.3
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0
CALM	3.7						3.7	.0	1.9	4.4	5.0	3.5
TOT OBS						26258		8.4	6103	5757	6161	8237
TOT PCT	37.2	58.2	4.6	.1	*	100.0			100.0	100.0	100.0	100.0

PERIOD: (PRIMARY) 1927-1978
(OVER-ALL) 1854-1978

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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	11-21	22-33	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
0000	1.9	9.1	61.7	26.7	.6	.0	.0	8.5	100.0	6103
0600	4.4	7.0	59.8	28.1	.8	.0	.0	8.7	100.0	5757
1200	5.0	11.6	58.6	24.4	.4	.0	.0	8.0	100.0	6161
1800	3.5	9.0	59.6	27.4	.5	.0	.0	8.5	100.0	8237
TOT								8.4		26258
PCT	3.7	9.2	59.9	26.7	.6	*	.0		100.0	

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8-10	TOTAL OBS	MEAN CLOUD COVER
N	.1	.2	.3	.4		5.1
NE	.1	.1	.3	.2		3.9
E	.2	.2	.4	.3		6.3
SE	1.3	1.0	1.6	1.6		5.6
S	5.7	4.1	10.2	15.3		5.8
SW	5.7	4.6	12.7	20.0		5.9
W	1.2	1.1	2.5	3.1		5.8
NW	.2	.2	.6	.5		5.9
VAR	.0	.0	.0	.0		.0
CALM	.6	.5	1.6	1.1		6.1
TOT OBS					13165	5.9
TOT PCT	15.1	11.9	30.3	42.6	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NM) >4/8
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH <5/8 ANY HGT	TOTAL OBS
N	*	*	.1	.1	.1	.1	.1	*	*	.0	*	.5
NE	.0	*	*	.1	.1	.1	*	*	*	*	*	.3
E	*	*	*	.1	.2	.1	*	*	*	*	*	.6
SE	*	*	.2	.5	1.1	.5	.2	.1	*	*	*	3.1
S	.1	.2	1.1	4.6	9.2	3.6	1.2	.4	.3	.5	.5	15.0
SW	.1	.3	2.1	6.3	10.7	4.0	1.3	.4	.6	.8	.8	16.5
W	*	*	.5	1.0	1.5	.6	.3	.1	.1	.2	.2	3.7
NW	*	*	.1	.1	.3	.1	.1	.0	*	*	*	.8
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	*	.1	.3	.6	.2	.1	*	.1	.1	.1	2.2
TOT OBS												13165
TOT PCT	.2	.6	4.2	13.0	22.8	9.3	3.3	1.0	1.2	1.7	42.7	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE
OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)							
	>10	>5	>2	>1	>1/2	>1/4	>50YD	>0
# OR >6500	2.6	2.9	2.9	2.9	2.9	2.9	2.9	2.9
# OR >5000	3.4	3.8	3.9	3.9	3.9	3.9	3.9	3.9
# OR >3500	6.2	7.1	7.2	7.2	7.2	7.2	7.2	7.2
# OR >2000	14.3	16.3	16.5	16.5	16.5	16.5	16.5	16.5
# OR >1000	33.8	38.8	39.2	39.2	39.2	39.3	39.3	39.3
# OR >600	44.6	51.6	52.1	52.2	52.2	52.2	52.2	52.2
# OR >300	47.6	55.6	56.3	56.3	56.3	56.3	56.3	56.3
# OR >150	47.9	56.1	56.8	56.9	56.9	56.9	56.9	56.9
# OR >0	48.1	56.3	57.0	57.1	57.1	57.1	57.1	57.1

TOTAL NUMBER OF OBS 13338

PCT FREQ NH <5/8 42.9

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	OBS	TOTAL OBS
10.6	8.9	8.8	7.6	6.4	5.6	8.0	10.2	33.9	.1	14257

PERIOD: (PRIMARY) 1927-1970
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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSRY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	*	.0	.0	.0	.0	.0	.0	*	.0	.0	*	
	NO PCP	.0	.0	.0	*	*	*	.0	.0	.0	.0	*	
	TOT %	*	.0	.0	*	*	*	.0	*	.0	.0	*	
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	*	*	*	*	.0	.0	.0	*	
	TOT %	.0	.0	.0	*	*	*	*	.0	.0	.0	*	
1<2	PCP	*	*	.0	*	*	.1	*	.0	.0	*	.1	
	NO PCP	.0	*	.0	*	*	*	.0	.0	.0	.0	*	
	TOT %	*	*	.0	*	*	.1	*	.0	.0	*	.2	
2<5	PCP	*	*	*	*	.1	.1	*	*	.0	*	.3	
	NO PCP	*	*	*	*	.2	.3	.1	*	.0	*	.7	
	TOT %	*	*	*	.1	.3	.4	.1	*	.0	.1	1.0	
5<10	PCP	.1	*	*	.1	.5	.4	.1	*	.0	.1	1.3	
	NO PCP	.2	.2	.2	1.5	5.2	5.4	1.0	.3	.0	.5	14.5	
	TOT %	.2	.3	.3	1.6	5.7	5.8	1.1	.3	.0	.5	15.8	
10+	PCP	*	*	*	.1	.4	.4	*	.1	.0	.1	1.1	
	NO PCP	.7	.6	.9	4.8	28.3	35.6	6.8	1.2	.0	2.8	81.9	
	TOT %	.8	.6	.9	4.9	28.7	36.0	6.9	1.3	.0	2.9	83.0	
TOT OBS													17660
TOT PCT		1.0	1.0	1.2	6.6	34.8	42.3	8.1	1.6	.0	3.4	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED
WITH VARYING VALUES OF VISIBILITY

VSRY (NM)	SPO KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	*	.0	*	*	.0	.0	.0	.0	.0	*	
	4-10	*	.0	.0	*	*	*	*	*	*	.0	.1	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	*	*	.0	*	*	*	*	*	.0	.0	.1	
1/2<1	0-3	.0	.0	.0	.0	*	*	*	.0	.0	.0	*	
	4-10	.0	.0	.0	*	*	*	*	.0	.0	.0	*	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	*	*	*	*	.0	.0	.0	*	
1<2	0-3	*	.0	.0	*	*	*	.0	.0	.0	.0	*	
	4-10	*	*	*	*	*	.1	*	*	.0	.0	.1	
	11-21	*	*	.0	*	.0	*	.0	.0	.0	.0	*	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	*	*	.0	*	*	.1	*	*	.0	.0	.2	
2<5	0-3	*	*	*	*	*	*	*	*	.0	.1	.2	
	4-10	*	*	*	.1	.2	.4	.1	*	.0	.0	.8	
	11-21	*	*	*	*	.1	.1	*	*	.0	.0	.3	
	22+	.0	.0	.0	.0	.0	*	.0	.0	.0	.0	*	
	TOT %	*	*	*	.1	.4	.5	.1	.1	.0	.1	1.3	
5<10	0-3	.1	.1	.1	.2	.3	.4	.2	.1	.0	.6	2.0	
	4-10	.1	.2	.1	1.0	3.1	3.4	.8	.2	.0	.0	9.1	
	11-21	*	*	*	.2	1.6	2.0	.2	*	.0	.0	4.2	
	22+	.0	.0	.0	*	.1	*	*	.0	.0	.0	.1	
	TOT %	.2	.3	.3	1.4	5.2	5.9	1.1	.3	.0	.6	15.3	
10+	0-3	.2	.2	.2	.5	2.1	2.9	1.1	.3	.0	3.1	10.6	
	4-10	.5	.4	.6	3.3	16.0	22.2	5.2	1.0	.0	.0	49.2	
	11-21	.1	.1	*	.7	9.5	11.3	1.2	.1	.0	.0	22.9	
	22+	*	.0	.0	*	.2	.2	*	.0	.0	.0	.4	
	TOT %	.8	.7	.9	4.5	27.7	36.5	7.4	1.5	.0	3.1	83.1	
TOT OBS													20461
TOT PCT		1.1	1.0	1.2	6.0	33.4	43.1	8.7	1.8	.0	3.7	100.0	

PERIOD: (PRIMARY) 1927-1978
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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NM >4/8) AND
OCCURRENCE OF NM <5/8 BY HOUR

HOURL (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NM <5/8 ANY HGT	TOTAL OBS
00003	.2	.5	3.6	11.5	20.0	7.5	3.0	1.0	1.3	1.4	50.0	50.0	3571
06009	.4	.5	2.4	12.0	25.7	11.9	3.7	1.0	1.0	1.7	60.3	39.7	2400
12015	.2	.8	6.2	16.0	25.4	9.8	3.7	1.2	1.3	1.9	66.5	33.5	3844
18021	.2	.4	3.4	10.8	19.2	8.3	2.7	.8	1.0	1.7	48.4	51.6	3844
TOT PCT	.2	.6	4.1	12.7	22.3	9.1	3.2	1.0	1.1	1.7	56.1	43.9	13659 100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOURL (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.1	*	.1	1.1	14.0	84.7	5152
06009	.1	*	.1	1.6	19.3	78.9	4478
12015	.1	.1	.4	1.7	15.6	82.1	5274
18021	.1	*	.2	.9	14.1	84.7	5877
TOT PCT	.1	.1	.2	1.3	15.6	82.8	20781 100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR
CEILING HGT (FEET, NM >4/8), BY HOUR

HOURL (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND 5+	NM <5/8 AND 5+	TOTAL OBS
00003	.2	4.4	16.7	34.7	48.6	3468
06009	.4	3.3	16.2	45.5	38.2	2346
12015	.2	7.3	24.2	43.3	32.5	3772
18021	.2	4.1	15.5	33.8	50.7	3752
TOT PCT	.2	5.0	18.5	38.8	42.7	13338 100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
95/99	.0	.0	.0	.0	.0	.0	*	.0	*	*
90/94	.0	.0	*	*	*	*	*	.0	*	*
85/89	.0	*	*	.1	.1	.3	.1	.1	.8	*
80/84	.0	.0	*	.1	.6	3.6	2.5	1.1	8.0	*
75/79	.0	.0	*	.1	.4	8.0	17.1	6.3	31.8	*
70/74	.0	.0	.0	*	.2	5.2	24.7	9.6	39.9	*
65/69	.0	.0	.0	.0	.1	.8	10.4	6.5	17.8	*
60/64	.0	.0	.0	.0	*	*	.5	1.1	1.7	*
55/59	.0	.0	.0	.0	.0	.0	*	*	*	*
TOTAL PCT	.0	*	.1	.2	1.5	18.0	55.4	24.9	15840	100.0

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.0	.0	*	.0	.0	.0	.0	.0	.0	.0
*	*	.0	*	*	.0	.0	.0	.0	*
*	*	.0	.1	.2	.2	.1	*	.0	.1
.3	.3	.3	.8	1.9	2.0	1.1	.4	.0	.6
.5	.5	.7	2.6	10.1	12.0	3.0	.7	.0	1.8
.1	.1	.2	2.4	14.1	18.9	2.8	.4	.0	1.0
*	*	*	1.0	7.5	7.8	.9	.2	.0	.2
.0	.0	*	.2	1.0	.5	*	*	.0	*
.0	.0	.0	.0	*	.0	.0	.0	.0	.0
1.1	.9	1.3	7.2	34.8	41.4	8.0	1.6	.0	3.7

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOURL (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	89	80	78	74	68	66	60	73.4	6174
06009	90	79	77	73	67	65	56	72.6	5860
12015	91	81	78	73	68	65	58	72.4	6225
18021	95	84	81	74	70	67	62	75.5	8181
TOT	95	83	79	74	68	66	56	73.6	26440

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOURL (GMT)	0-29	30-39	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	.2	.9	13.8	60.6	24.5	85	4133
06009	.0	.1	.5	8.6	52.7	38.1	87	3094
12015	.0	.1	.5	10.2	58.6	30.6	86	4434
18021	.0	.7	3.9	35.1	48.8	11.6	81	4629
TOT	0	.47	2.57	29.35	89.82	40.69	85	16290

PERIOD: (PRIMARY) 1927-1978
(OVER-ALL) 1854-1978

ANNUAL

AREA 0034 GUAYAQUIL
1.95 81.6W

TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	57 60	61 64	65 68	69 72	73 76	77 80	81 84	85 88	89 92	>92	TOT	N FOG	WD FOG
23/25	.0	.0	.0	.0	.0	.0	.0	*	.0	.0	1	.0	*
20/22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1	.0	*
17/19	.0	.0	.0	.0	*	.0	*	*	*	.0	6	.0	*
14/16	.0	.0	*	*	*	*	*	*	*	*	24	.0	.1
11/13	.0	*	*	*	*	*	*	*	*	*	56	.0	.4
9/10	.0	.0	*	.1	.1	.1	.1	*	*	.0	81	.0	.5
7/8	.0	*	*	.3	.2	.3	.3	.1	*	.0	210	.0	1.3
6	.0	*	.1	.2	.1	.3	.2	.1	*	.0	166	*	1.0
5	.0	*	.1	.3	.3	.5	.2	.1	*	.0	263	*	1.6
4	*	*	.2	.4	.6	.7	.5	.1	.0	.0	382	*	2.3
3	.0	.1	.2	.5	.7	.9	.4	.1	.0	.0	453	*	2.8
2	.0	.1	.6	.8	1.3	1.5	.6	*	.0	.0	801	*	4.9
1	.0	.1	.6	1.2	2.5	2.1	.6	*	.0	.0	1146	.1	7.0
0	.0	.3	1.1	2.4	3.6	3.7	.8	*	.0	.0	1922	.2	11.8
-1	*	.2	1.0	3.0	4.7	3.6	.5	.0	.0	.0	2102	.2	12.8
-2	*	.2	1.4	3.8	5.1	3.0	.2	*	.0	.0	2210	.2	13.6
-3	.0	.2	1.5	4.8	4.6	2.1	.1	.0	.0	.0	2126	.1	13.2
-4	*	.1	1.6	3.9	3.0	1.0	*	.0	.0	.0	1566	*	9.8
-5	.0	.1	1.5	2.9	1.8	.7	*	.0	.0	.0	1120	*	7.0
-6	*	.1	1.1	1.4	.9	.2	*	.0	.0	.0	596	*	3.7
-7/8	.0	.1	1.1	1.5	.8	.1	*	.0	.0	.0	574	*	3.6
-9/10	.0	.1	.4	.4	.1	*	.0	.0	.0	.0	176	.0	1.1
-11/13	.0	*	.1	.1	*	.0	.0	.0	.0	.0	47	.0	.3
-14/16	.0	*	*	*	*	.0	.0	.0	.0	.0	8	.0	*
-17/19	.0	.0	*	.0	.0	.0	.0	.0	.0	.0	2	.0	*
TOTAL											16039		
PCT	*	1.8	12.7	28.0	30.7	21.3	4.8	.7	.1	*	100.0	1.0	99.0

PERIOD: (OVER-ALL) 1963-1978

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.1	.1	.0	.0	.0	.0	.3	.1	.1	.0	.0	.0	.0	.2
1-2	.1	.3	.1	.0	.0	.0	.4	*	.3	*	.0	.0	.0	.4
3-4	*	.1	*	.0	.0	.0	.2	*	.1	*	.0	.0	.0	.1
5-6	.0	*	.0	.0	.0	.0	*	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.2	.6	.1	.0	.0	.0	.9	.1	.5	.1	.0	.0	.0	.7

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.1	.1	*	.0	.0	.0	.3	.2	.3	*	.0	.0	.0	.6
1-2	.1	.5	.1	.0	.0	.0	.6	.1	2.2	.3	.0	.0	.0	2.7
3-4	.0	.1	*	.0	.0	.0	.2	*	.9	.6	.0	.0	.0	1.5
5-6	.0	*	*	.0	.0	.0	*	.0	.1	.3	.0	.0	.0	.4
7	.0	.0	.0	.0	.0	.0	.0	.0	*	*	.0	.0	.0	*
8-9	.0	.0	.0	.0	.0	.0	.0	.0	*	.0	.0	.0	.0	*
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.2	.7	.1	.0	.0	.0	1.0	.4	3.6	1.2	*	.0	.0	5.2

PERIOD: (OVER-ALL) 1964-1978

ANNUAL
TABLE 18 (CONT)AREA 0034 GUAYAQUIL
1.95 81.6W

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL
<1	1.2	2.6	.1	.0	.0	.0	3.9	1.8	5.3	.1	.0	.0	.0	7.3	
1-2	.7	8.8	2.8	.0	.0	.0	12.3	.6	10.4	2.9	.0	.0	.0	13.9	
3-4	.5	6.3	6.0	.1	.0	.0	13.0	1.0	8.1	6.5	.1	.0	.0	15.6	
5-6	*	1.3	2.8	.1	.0	.0	4.2	.4	2.5	3.4	.1	.0	.0	6.4	
7	*	.2	.7	.1	.0	.0	1.1	.1	.5	.8	.1	.0	.0	1.4	
8-9	.0	.0	.1	.0	.0	.0	.1	.0	.0	.2	.0	.0	.0	.2	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	2.5	19.2	12.5	.4	.0	.0	34.6	3.9	26.8	13.9	.3	.0	.0	44.8	

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL
<1	.9	2.1	.0	.0	.0	.0	3.0	.2	.3	.0	.0	.0	.0	.5	
1-2	.2	2.3	.4	.0	.0	.0	3.0	.4	.4	.0	.0	.0	.0	.5	
3-4	.1	.9	.5	.0	.0	.0	1.6	.0	.2	.0	.0	.0	.0	.2	
5-6	.1	.1	.2	.0	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	
7	*	*	*	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	1.3	5.5	1.2	.0	.0	.0	7.9	.2	1.0	.1	.0	.0	.0	1.3	96.4

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	8.3	11.0	.3	.0	.0	.0	19.5	
1-2	2.1	25.1	6.5	.0	.0	.0	33.7	
3-4	1.8	16.6	13.7	.2	.0	.0	32.3	
5-6	.5	4.1	6.5	.2	.0	.0	11.4	
7	.1	.7	1.6	.2	.0	.0	2.6	
8-9	*	.1	.3	*	.0	.0	.4	
10-11	.0	.0	*	.0	.0	.0	*	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	12.9	57.5	28.9	.7	.0	.0	100.0	7352

PERIOD: (OVER-ALL) 1949-1977

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	8.1	14.4	20.6	6.9	1.6	.3	.1	*	*	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	5996
6-7	*	1.8	7.9	9.0	2.8	.4	.2	*	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2591
8-9	*	.8	2.3	3.2	2.0	.4	.2	*	.1	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1035
10-11	.0	.8	1.0	1.1	.6	.3	.2	*	.0	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	467
12-13	.0	.0	1.0	.7	.4	.1	.1	*	.0	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	268
>13	.0	.0	.0	.4	.1	.1	*	.0	*	*	.0	.0	*	.0	.0	.0	.0	.0	.0	.0	80
INDET	3.1	2.2	2.5	1.2	.3	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1105
TOTAL																					11542
PCT	11.3	20.1	35.1	22.4	8.0	1.8	.9	.1	.1	.1	*	.0	*	.0	.0	.0	.0	.0	.0	.0	100.0

PERIOD: (PRIMARY) 1927-1978
(OVER-ALL) 1854-1978

TABLE 20

AREA 0034 GUAYAQUIL
1.95 81.6W

SEA TMP DEG F	PERCENT FREQUENCY OF OCCURRENCE OF SEA TEMP (DEG F) BY MONTH												ANN	PCT
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC		
96+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
95/96	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
93/94	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
91/92	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
89/90	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2	.0
87/88	.0	.1	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	9	.0
85/86	.3	.7	.8	.2	.3	.1	.0	.0	.0	.1	.0	.0	58	.2
83/84	.8	3.2	4.9	2.9	1.4	1.0	.2	.2	.1	.1	.2	.1	337	1.3
81/82	4.6	16.7	21.4	12.0	8.1	4.3	1.9	.6	.9	1.4	.8	2.0	1650	6.3
79/80	16.9	24.5	23.9	19.2	15.1	11.6	5.5	1.8	2.5	3.2	2.8	4.8	2870	10.9
77/78	31.4	23.1	20.2	20.2	20.0	17.2	11.5	7.8	9.3	11.7	9.4	16.8	4316	16.4
75/76	21.4	18.4	14.2	16.9	18.0	18.4	18.0	14.5	19.3	20.1	21.0	26.3	4925	18.7
73/74	17.4	9.9	7.8	14.0	18.8	19.5	22.2	27.6	23.3	26.8	28.6	23.4	5159	19.5
71/72	6.9	3.4	3.6	7.8	8.9	11.8	14.5	18.5	19.6	14.4	14.9	13.1	3032	11.5
69/70	3.2	1.5	1.3	2.9	6.2	7.4	10.4	11.1	10.9	8.1	9.0	6.3	1732	6.6
67/68	1.6	.3	.9	1.8	2.9	4.5	7.2	7.6	5.6	6.4	4.8	3.8	1055	4.0
65/66	.3	.1	.5	.8	1.4	2.4	4.4	5.2	4.4	4.6	3.6	1.8	658	2.5
63/64	.0	.0	.1	.4	.7	1.3	3.0	3.7	3.1	2.4	4.0	1.0	446	1.7
61/62	.0	.0	.0	.1	.1	.2	.7	.9	.5	.7	.4	.3	87	.3
59/60	.0	.0	.0	.1	.0	.1	.1	.3	.2	.1	.2	.1	29	.1
57/58	.0	.0	.0	.0	.0	.1	.3	.1	.2	.0	.1	.0	17	.1
55/56	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	6	.0
53/54	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.1	6	.0
51/52	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
49/50	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
47/48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
45/46	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
43/44	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
41/42	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
39/40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
37/38	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
35/36	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
33/34	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
31/32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
29/30	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
27/28	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
<27	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
TOTAL	2024	2200	2368	2104	2232	1926	2132	2371	2098	2368	2466	2105	26394	100.0
MEAN	76.2	77.8	78.1	76.5	75.6	74.5	72.8	72.0	72.5	72.9	72.8	74.1	74.6	

TABLE 21

PRESSURE (MB)

AVERAGE BY HOUR (GMT)

MO	0000	0300	0600	0900	1200	1500	1800	2100	MEAN	TOTAL OBS
JAN	1010	1012	1011	1010	1012	1012	1012	1009	1011	1637
FEB	1010	1010	1011	1010	1011	1012	1011	1009	1011	1815
MAR	1009	1012	1011	1010	1011	1012	1011	1009	1010	1978
APR	1009	1012	1011	1010	1011	1012	1011	1009	1011	1754
MAY	1011	1012	1012	1011	1012	1013	1012	1010	1012	1847
JUN	1011	1013	1013	1012	1012	1014	1012	1010	1012	1561
JUL	1012	1013	1013	1012	1012	1014	1012	1010	1012	1738
AUG	1012	1012	1013	1012	1013	1014	1012	1010	1012	1763
SEP	1011	1013	1013	1012	1013	1014	1012	1011	1012	1453
OCT	1012	1013	1013	1012	1013	1013	1013	1011	1013	1766
NOV	1011	1013	1013	1011	1013	1013	1012	1010	1012	1786
DEC	1010	1011	1012	1010	1012	1012	1012	1010	1011	1690
ANN	1011	1012	1012	1011	1012	1013	1012	1010	1012	20788
OBS	4793	315	3428	551	4973	395	5649	684		

PERCENTILES

MO	MIN	1%	5%	25%	50%	75%	95%	99%	MAX
JAN	1000	1005	1008	1010	1011	1012	1014	1016	1023
FEB	1001	1004	1007	1009	1011	1012	1014	1015	1018
MAR	1000	1004	1007	1009	1011	1012	1014	1015	1019
APR	1000	1005	1007	1009	1011	1012	1014	1015	1020
MAY	999	1007	1008	1010	1012	1013	1015	1017	1020
JUN	1000	1007	1009	1011	1012	1013	1015	1017	1019
JUL	1005	1006	1008	1011	1012	1014	1015	1017	1019
AUG	999	1001	1009	1011	1013	1014	1015	1017	1023
SEP	1001	1007	1009	1011	1013	1014	1015	1017	1021
OCT	1001	1008	1010	1011	1013	1014	1016	1017	1019
NOV	999	1006	1009	1011	1012	1013	1015	1017	1022
DEC	1000	1005	1008	1010	1011	1013	1015	1016	1025

PERIOD: (PRIMARY) 1931-1976
(OVER-ALL) 1881-1978

JANUARY

AREA 0035 BUENAVENTURA SW
1.8N 80.8W

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA						
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT 06 TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST SIG
N	8.4	2.7	3.7	.0	.0	.0	.0	14.9	8.2	1.6	.0	.0	2.2	.0 73.2
NE	10.5	2.2	4.9	.0	.0	.0	.0	14.6	2.2	1.5	7.5	.0	.4	.0 75.3
E	9.2	7.6	.0	.0	.0	.0	.0	16.8	12.6	.0	10.1	.0	.0	.0 60.5
SE	4.6	2.7	3.7	.0	.0	.0	.0	9.8	11.3	.0	7.9	.0	.0	.0 71.0
S	4.9	1.8	2.7	.0	.0	.0	.0	9.3	5.3	1.3	4.7	.0	.5	.0 79.0
SW	7.2	2.0	3.6	.0	.0	.0	.0	12.6	4.0	1.6	.0	.0	.2	.0 81.4
W	5.1	1.5	2.0	.0	.0	.0	.0	8.1	7.1	1.3	1.3	.0	.0	.0 82.3
NW	12.8	4.1	3.3	.0	.0	.0	.0	20.2	5.8	.0	.8	.0	.0	.0 73.1
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0 .0
CALM	10.9	4.3	2.2	.0	.0	.0	.0	15.2	2.2	.0	.0	.0	.0	.0 82.6
TOT PCT	6.8	2.3	3.1	.0	.0	.0	.0	11.7	5.5	1.2	2.6	.0	.4	.0 78.7
TOT OBS:	1550													

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA						
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT 06 TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST SIG
0000	3.6	1.7	2.2	.0	.0	.0	.0	7.5	3.4	1.0	2.4	.0	.7	.0 85.2
0600	5.6	1.7	3.7	.0	.0	.0	.0	10.7	3.4	3.7	3.7	.0	.5	.0 78.5
1200	9.1	3.3	4.0	.0	.0	.0	.0	15.7	9.6	.5	1.3	.0	.0	.0 73.0
1800	9.9	2.8	2.8	.0	.0	.0	.0	14.8	5.6	.3	3.1	.0	.3	.0 76.0
TOT PCT	7.0	2.4	3.2	.0	.0	.0	.0	12.1	5.5	1.4	2.6	.0	.4	.0 78.3
TOT OBS:	1611													

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							48+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	00	03					06	09	12	15	18	21		
N	1.0	5.1	3.1	.3	.0	.0	9.5	9.6	10.7	3.1	7.5	10.0	8.3	7.9	10.9	12.0			
NE	.5	2.4	1.4	.1	.0	.0	4.4	9.2	4.5	5.3	3.9	4.7	3.7	3.0	5.2	5.3			
E	.2	1.5	.2	.0	.0	.0	1.9	6.9	1.5	5.5	1.4	1.3	2.0	4.3	2.9	1.4			
SE	.7	4.0	.6	*	.0	.0	5.4	7.1	4.9	11.7	6.6	4.1	4.8	4.3	5.9	4.1			
S	2.2	16.4	4.8	.1	.0	.0	23.4	8.3	19.6	36.7	19.3	15.0	25.6	43.9	29.2	23.9			
SW	2.0	24.5	8.8	.1	.0	.0	35.3	8.7	35.6	18.0	35.3	38.6	39.1	27.4	32.2	34.7			
W	1.3	8.0	2.4	.1	.0	.0	11.7	8.1	15.2	10.2	15.5	15.5	8.3	6.1	7.0	11.4			
NW	.7	3.6	.6	.0	.0	.0	4.9	7.3	5.0	.0	6.1	5.9	4.3	3.0	4.2	5.3			
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0			
CALM	3.5						3.5	.0	3.1	9.4	4.5	5.0	3.9	.0	2.5	1.9			
TOT OBS	286	1549	517	16	0	0	2368		513	32	488	160	491	41	481	160			
TOT PCT	12.1	65.4	21.8	.7	.0	.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0			

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)					TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)				
	0-6	7-16	17-27	28-40	41+				00	03	06	12	18
N	2.9	5.4	1.1	.0	.0				10.3	8.1	8.3	11.2	
NE	1.6	2.4	.4	.0	.0				4.6	4.1	3.7	5.3	
E	1.2	.7	.0	.0	.0				1.7	1.4	2.2	2.5	
SE	3.0	2.3	.1	.0	.0				5.3	5.9	4.8	5.4	
S	8.4	14.4	.6	.0	.0				20.6	18.2	27.0	27.9	
SW	11.3	23.2	.9	.0	.0				34.6	36.1	38.2	32.8	
W	4.9	6.4	.4	.0	.0				14.9	15.5	8.1	8.1	
NW	2.2	2.7	.0	.0	.0				4.7	6.1	4.2	4.4	
VAR	.0	.0	.0	.0	.0				.0	.0	.0	.0	
CALM	3.5								3.5	4.6	3.6	2.3	
TOT OBS	922	1361	84	1	0	2368			547	648	532	641	
TOT PCT	38.9	57.5	3.5	.0	.0				100.0	100.0	100.0	100.0	

PERIOD: (PRIMARY) 1931-1978
(OVER-ALL) 1881-1978

JANUARY

AREA 0035 BUENAVENTURA SW
1.8N 80.8W

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)				48+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47					
0000	3.5	8.8	65.4	20.8	1.5	.0	.0	.0	8.3	100.0	547
0600	4.6	6.9	71.1	17.0	.3	.0	.0	.0	7.6	100.0	648
1200	3.6	9.4	63.0	22.9	1.1	.0	.0	.0	8.3	100.0	532
1800	2.3	9.4	61.6	26.7	.0	.0	.0	.0	8.4	100.0	641
TOT	83	203	1549	517	16	0	0	0	8.1		2388
PCT	3.5	8.6	65.4	21.8	.7	.0	.0	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	.8	.8	2.3	3.4		6.2
NE	.6	.6	1.0	1.2		5.4
E	.1	.7	.7	.8		6.8
SE	.2	.6	1.7	2.2		6.3
S	1.2	3.3	9.2	10.5		6.4
SW	2.0	3.7	15.1	17.2		6.5
W	.7	1.1	4.8	6.4		6.6
NW	.4	.6	1.2	1.5		5.9
VAR	.0	.0	.0	.0		.0
CALM	.4	.4	1.1	1.7		6.0
TOT OBS	74	127	416	506	1123	6.4
TOT PCT	6.6	11.3	37.0	45.1	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8)
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

	000	150	300	600	1000	2000	3500	5000	6500	8000+	NH <5/8 ANY HGT	TOTAL OBS
	149	299	599	799	1999	3499	4999	5499	7999			
N	.0	.0	.3	1.4	1.7	.7	.2	.0	.1	.2	3.0	
NE	.1	.0	.2	.6	.2	.1	.0	.0	.0	.0	1.7	
E	.1	.0	.2	.2	.3	.3	.1	.0	.0	.0	.4	
SE	.0	.0	.1	.7	.7	.6	.5	.1	.0	.0	2.1	
S	.1	.1	.6	4.0	6.7	3.3	.8	.2	.1	.3	8.1	
SW	.2	.3	1.6	5.5	10.0	4.2	2.0	.4	.4	.3	13.1	
W	.2	.1	.4	1.9	3.0	2.0	.4	.0	.0	.2	5.1	
NW	.1	.0	.4	.4	.8	.1	.2	.0	.0	.0	1.6	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.3	.0	.0	.4	1.2	.0	.2	.0	.0	.0	1.5	
TOT OBS	11	5	44	168	281	127	50	8	7	11	411	1123
TOT PCT	1.0	.4	3.9	15.0	25.0	11.3	4.5	.7	.6	1.0	36.6	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE
OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)				OR			
	>10	>5	>2	>1	>1 1/2	>1 1/4	>5/8	>0
>6500	1.4	1.6	1.6	1.6	1.6	1.6	1.6	1.6
>5000	2.0	2.3	2.3	2.3	2.3	2.3	2.3	2.3
>3500	6.1	6.9	6.9	6.9	6.9	6.9	6.9	6.9
>2000	15.3	17.4	18.0	18.0	18.0	18.0	18.0	18.0
>1000	35.2	41.8	42.8	42.8	42.8	42.8	42.8	42.8
>600	46.4	56.1	57.4	57.4	57.6	57.6	57.6	57.6
>300	48.2	59.3	61.3	61.4	61.5	61.5	61.5	61.5
>150	48.5	59.6	61.6	61.8	61.9	61.9	61.9	61.9
>0	48.8	60.1	62.4	62.8	62.9	62.9	62.9	62.9
TOTAL	564	694	721	725	726	726	726	726

TOTAL NUMBER OF OBS: 1123

PCT FREQ NH <5/8: 37.1

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

	0	1	2	3	4	5	6	7	8	OBSCD	TOTAL OBS
	3.4	5.7	9.3	10.0	9.4	7.9	11.2	11.8	30.9	.4	1246

PERIOD: (PRIMARY) 1931-1978
(OVER-ALL) 1881-1978

JANUARY

AREA 0035 BUENAVENTURA SW
1.8N 80.8W

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1/2<1	PCP	.1	.0	.0	.1	.1	.1	.1	.1	.0	.0	.5	.5
	NO PCP	.0	.0	.0	.0	.0	.1	.1	.1	.0	.0	.1	.1
	TOT %	.1	.0	.0	.1	.1	.2	.2	.2	.0	.0	.7	.7
1<2	PCP	.1	.0	.0	.0	.0	.1	.0	.1	.0	.0	.3	.3
	NO PCP	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1	.1
	TOT %	.1	.0	.0	.0	.0	.2	.0	.1	.0	.0	.3	.3
2<5	PCP	.1	.1	.1	.0	.2	.7	.1	.2	.0	.1	1.6	1.6
	NO PCP	.3	.1	.0	.1	.2	.3	.1	.0	.0	.1	1.0	1.0
	TOT %	.4	.3	.1	.1	.4	.9	.2	.2	.0	.1	2.6	2.6
5<10	PCP	.7	.4	.2	.2	1.3	2.3	.5	.5	.0	.3	6.5	6.5
	NO PCP	2.2	1.2	.9	1.3	4.2	4.3	1.6	1.1	.0	.3	17.0	17.0
	TOT %	2.9	1.6	1.0	1.5	5.5	6.6	2.2	1.6	.0	.7	23.5	23.5
10+	PCP	.3	.1	.0	.2	.6	1.2	.4	.1	.0	.0	2.8	2.8
	NO PCP	4.8	2.5	.7	3.2	17.4	26.6	10.4	2.2	.0	2.2	70.1	70.1
	TOT %	5.1	2.6	.7	3.5	18.0	27.8	10.8	2.2	.0	2.2	72.8	72.8
TOT OBS		1484											
TOT PCT		8.5	4.5	1.9	5.1	24.0	35.8	13.2	4.1	.0	3.0	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1/2<1	0-3	.0	.0	.0	.1	.0	.1	.0	.0	.0	.0	.1	.1
	4-10	.0	.0	.0	.0	.1	.1	.1	.1	.0	.0	.3	.3
	11-21	.1	.0	.0	.0	.0	.1	.0	.0	.0	.0	.2	.2
	22+	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1
	TOT %	.1	.0	.0	.1	.1	.1	.1	.1	.0	.0	.6	.6
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.1	.0	.0	.0	.1	.4	.1	.1	.0	.0	.8	.8
	11-21	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1	.1
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.1	.0	.0	.0	.1	.5	.1	.1	.0	.0	.9	.9
2<5	0-3	.2	.1	.1	.1	.1	.1	.0	.1	.0	.2	.7	.7
	4-10	.2	.1	.1	.1	.3	1.1	.3	.1	.0	.0	2.4	2.4
	11-21	.1	.1	.0	.0	.1	.2	.1	.1	.0	.0	.6	.6
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1
	TOT %	.4	.2	.1	.1	.5	1.5	.4	.2	.0	.2	3.7	3.7
5<10	0-3	.4	.1	.1	.3	.4	.4	.2	.1	.0	.7	2.6	2.6
	4-10	1.4	.7	.6	.8	2.5	5.5	1.4	1.2	.0	.0	15.2	15.2
	11-21	.9	.5	.2	.2	1.0	1.3	.6	.3	.0	.0	5.0	5.0
	22+	.1	.0	.0	.0	.0	.0	.1	.0	.0	.0	.1	.1
	TOT %	2.7	1.4	1.0	1.4	4.9	7.2	2.2	1.6	.0	.7	22.9	22.9
10+	0-3	.5	.3	.1	.3	1.5	1.3	1.2	.5	.0	2.4	8.2	8.2
	4-10	2.8	1.3	.6	2.4	11.4	18.6	7.0	1.8	.0	.0	46.0	46.0
	11-21	2.1	.8	.1	.5	3.3	7.9	2.2	.3	.0	.0	17.2	17.2
	22+	.1	.1	.0	.1	.1	.1	.0	.0	.0	.0	.5	.5
	TOT %	5.7	2.6	.7	3.2	16.3	27.9	10.5	2.6	.0	2.4	71.9	71.9
TOT OBS		1838											
TOT PCT		9.1	4.2	1.8	4.8	22.0	37.2	13.2	4.7	.0	3.3	100.0	

PERIOD: (PRIMARY) 1931-1978
(OVER-ALL) 1881-1978

JANUARY

AREA 0035 BUENAVENTURA SW
1.8N 80.8W

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NM >4/8) AND
OCCURRENCE OF NM <5/8 BY HOUR

HOURL (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NM <5/8 ANY HGT	TOTAL OBS
00003	.9	.0	2.1	13.8	22.2	9.6	2.7	.6	.3	1.2	53.5	46.5	333
06009	1.4	.0	3.9	14.5	21.9	11.3	5.7	.7	.7	1.4	61.5	38.5	283
12015	.9	1.3	5.4	16.1	28.5	13.0	4.1	.9	.3	.3	70.9	29.1	316
18021	.4	.4	3.7	13.0	23.0	8.6	5.6	.4	1.1	1.1	57.2	42.8	269
TOT	11	5	45	173	288	128	53	8	7	12	730	471	1201
PCT	.9	.4	3.7	14.4	24.0	10.7	4.4	.7	.6	1.0	60.8	39.2	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOURL (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.0	.0	.7	1.7	16.8	80.8	458
06009	.0	.2	1.0	3.4	27.4	68.0	525
12015	.0	1.1	1.8	4.6	23.4	69.0	436
18021	.0	1.0	.0	4.8	24.3	69.8	477
TOT	0	11	16	69	439	1361	1896
PCT	.0	.6	.8	3.6	23.2	71.8	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR
CEILING HGT (FEET, NM >4/8) BY HOUR

HOURL (GMT)	<150 <500	<600 <1	<1000 <3	1000+ AND 5+	NM <5/8 AND 5+	TOTAL OBS
00003	1.0	3.2	18.2	38.2	43.6	314
06009	1.4	5.4	21.2	41.7	37.1	278
12015	1.0	8.1	26.1	46.6	27.4	307
18021	.4	4.7	20.3	40.6	39.1	256
TOT	11	62	248	483	424	1155
PCT	1.0	5.4	21.5	41.8	36.7	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
90/94	.0	.0	.0	.0	.1	.2	.1	.0	4	.3
85/89	.0	.0	.1	.2	.2	.9	.2	.0	22	1.7
80/84	.0	.0	.0	.0	1.2	7.7	9.1	2.0	265	20.0
75/79	.0	.0	.0	.0	.1	6.4	39.8	24.5	937	70.8
70/74	.0	.0	.0	.0	.0	.1	2.6	4.4	93	7.0
65/69	.0	.0	.0	.0	.0	.0	.0	.2	2	.2
TOTAL	0	0	1	3	21	202	686	410	1323	100.0
PCT	.0	.0	.1	.2	1.6	15.3	51.9	31.0		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.1	.0	.0	.0	.1	.2	.0	.0	.0	.0
.2	.1	.1	.2	.6	.4	.2	.1	.0	.0
3.0	2.4	.8	1.0	4.2	4.3	2.5	1.2	.0	.6
4.5	2.0	1.3	4.9	16.8	28.2	8.4	2.3	.0	2.3
.4	.0	.3	.5	3.1	1.9	.7	.1	.0	.1
.0	.0	.0	.0	.1	.0	.0	.0	.0	.0
8.1	4.5	2.5	6.6	24.8	34.9	11.8	3.7	.0	3.0

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOURL (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	85	83	82	78	74	72	68	77.7	552
06009	82	81	80	77	74	72	70	77.1	670
12015	88	82	81	77	74	72	69	77.3	527
18021	91	89	85	79	75	73	70	79.5	639
TOT	91	86	82	78	74	72	68	77.9	2388

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOURL (GMT)	0-29	30-39	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	.0	1.2	12.2	59.6	27.0	86	337
06009	.0	.0	.3	6.3	57.9	35.5	87	366
12015	.0	.3	.0	9.6	49.3	40.9	88	345
18021	.0	.9	4.8	34.6	41.0	18.7	82	332
TOT	0	4	21	212	719	424	86	1380

PERIOD: (PRIMARY) 1931-1978
(OVER-ALL) 1881-1978

JANUARY

TABLE 17

AREA 0035 BUENAVENTURA SW
1.8N 80.8W

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	65 68	69 72	73 76	77 80	81 84	85 88	86 92	TOT	W FOG	WD FOG
14/16	.0	.0	.0	.0	.1	.0	.1	2	.0	.1
11/13	.0	.0	.0	.0	.1	.0	.1	3	.0	.2
9/10	.0	.0	.0	.1	.1	.2	.1	8	.0	.6
7/8	.0	.0	.1	.3	.5	.1	.1	16	.1	1.0
6	.0	.0	.0	.3	.2	.4	.0	13	.0	.9
5	.0	.0	.2	.3	.3	.2	.0	15	.1	1.0
4	.0	.0	.0	.7	.9	.3	.0	28	.0	1.9
3	.0	.0	.1	.4	1.4	.1	.0	29	.1	1.9
2	.0	.0	.3	1.6	2.7	.1	.0	68	.3	4.4
1	.0	.0	.3	4.1	2.5	.0	.0	102	.6	6.4
0	.0	.1	1.2	10.4	2.5	.0	.0	206	.4	13.8
-1	.0	.2	3.3	12.8	1.2	.0	.0	254	.2	17.4
-2	.1	.3	5.8	12.4	.3	.0	.0	275	.8	18.3
-3	.0	.1	5.7	8.2	.6	.0	.0	181	.2	12.3
-4	.0	.1	4.4	3.0	.2	.0	.0	112	.2	7.5
-5	.0	.0	2.6	1.9	.1	.0	.0	67	.0	4.6
-6	.1	.1	1.7	.4	.0	.0	.0	32	.0	2.2
-7/-8	.0	.2	1.2	.6	.0	.0	.0	30	.0	2.1
-9/-10	.0	.1	.1	.1	.0	.0	.0	3	.0	.2
-11/-12	.0	.1	.1	.0	.0	.0	.0	2	.0	.1
TOTAL	3		395		197		7	1446	42	1404
PCT	.2	1.2	27.3	55.6	13.7	1.5	.5	100.0	2.9	97.1

PERIOD: (OVER-ALL) 1963-1978

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0	.2	.3	.0	.0	.0	.0	.5
1-2	.0	2.2	.4	.0	.0	.0	2.6	.2	.7	.3	.0	.0	.0	1.1
3-4	.1	1.7	1.5	.0	.0	.0	3.3	.*	.4	.5	.2	.0	.0	1.0
5-6	.0	.0	.6	.2	.0	.0	.8	.0	.0	.9	.0	.0	.0	.9
7	.1	.1	.2	.0	.0	.0	.4	.*	.*	.0	.0	.0	.0	.1
8-9	.0	.0	.0	.3	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.3	4.0	2.8	.5	.0	.0	7.5	.4	1.4	1.8	.2	.0	.0	3.6

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.2	.1	.0	.0	.0	.0	.3	.0	1.1	.0	.0	.0	.0	1.1
1-2	.0	.7	.0	.0	.0	.0	.7	.1	.9	.*	.0	.0	.0	1.0
3-4	.0	.2	.1	.0	.0	.0	.3	.0	1.5	.7	.0	.0	.0	2.1
5-6	.0	.0	.1	.0	.0	.0	.1	.0	.0	.1	.0	.0	.0	.1
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.2
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.2
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.2	1.0	.3	.0	.0	.0	1.4	.1	3.4	1.0	.2	.0	.0	4.7

PERIOD: (OVER-ALL) 1963-1978

JANUARY

AREA 0035 BUENAVENTURA SW
1.8N 80.8W

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.3	1.3	.0	.0	.0	.0	1.5	.0	2.0	.3	.0	.0	.0	3.0
1-2	1.4	9.1	1.1	.0	.0	.0	11.6	.5	11.6	4.6	.0	.0	.0	16.7
3-4	.0	4.3	3.2	.1	.0	.0	7.7	.2	7.3	6.4	.0	.0	.0	13.9
5-6	.0	.5	1.1	.0	.0	.0	1.6	.0	2.0	2.6	.2	.0	.0	4.8
7	.0	.0	.0	.1	.0	.0	.1	.0	.2	.3	.0	.0	.0	.5
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.3	.0	.0	.0	.0	.3
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.7	15.1	5.4	.3	.0	.0	22.5	.8	24.0	14.2	.3	.0	.0	39.2

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.3	.8	.0	.0	.0	.0	1.1	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.8	5.1	2.3	.0	.0	.0	8.2	.2	1.5	.0	.0	.0	.0	1.8	.0
3-4	.0	2.6	2.0	.0	.0	.0	4.6	.0	.6	.5	.0	.0	.0	1.2	.0
5-6	.0	.0	.6	.0	.0	.0	.6	.0	.0	.2	.0	.0	.0	.2	.0
7	.0	.2	.2	.0	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.1	8.7	5.0	.0	.0	.0	14.8	.2	2.2	.8	.0	.0	.0	3.2	96.8

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	5.4	6.2	.3	.0	.0	.0	11.9	
1-2	3.6	31.5	8.4	.0	.0	.0	43.5	
3-4	.3	18.3	14.4	.3	.0	.0	33.4	
5-6	.0	2.4	6.0	.3	.0	.0	8.8	
7	.2	.5	.8	.2	.0	.0	1.6	
8-9	.0	.0	.0	.5	.0	.0	.5	
10-11	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.3	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	9.4	59.3	30.0	1.3	.0	.0	100.0	616

PERIOD: (OVER-ALL) 1949-1978

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	3.1	20.4	24.8	6.9	1.2	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	586	3
6-7	.0	2.0	7.0	5.9	2.1	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	182	4
8-9	.1	.4	2.1	1.2	.7	.1	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	49	4
10-11	.0	1.4	1.1	.4	.1	.0	.4	.1	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	36	4
12-13	.0	.0	1.7	.5	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	24	4
>13	.0	.0	.0	.5	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	6	5
INDET	4.2	2.5	4.7	2.2	.8	.1	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	153	3
TOTAL	76	276	430	181	52	10	6	1	0	3	1	0	0	0	0	0	0	0	0	1036	3
PCT	7.3	26.6	41.5	17.5	5.0	1.0	.6	.1	.0	.3	.1	.0	.0	.0	.0	.0	.0	.0	.0	100.0	

FEBRUARY

PERIOD: (PRIMARY) 1932-1976
(OVER-ALL) 1875-1978

TABLE 1

AREA 0035 BUENAVENTURA SW
1.9N 80.9W

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							NO SIG WEA
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FGD WD PCPN	FGD WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	
N	4.6	3.9	1.8	.0	.0	.0	.0	9.6	4.9	1.4	1.5	.0	1.5	.0	81.2
NE	3.3	1.1	.4	.0	.0	.0	.0	4.9	3.5	.4	3.6	.0	1.8	.0	85.8
E	2.5	1.0	.0	.0	.0	.0	.0	3.4	5.7	2.0	5.4	.0	3.9	.0	79.6
SE	4.7	2.3	1.2	.0	.0	.0	.0	8.2	1.8	.2	2.7	.0	1.6	.0	85.6
S	4.9	1.8	2.8	.0	.0	.0	.0	9.4	4.3	1.1	.4	.0	1.1	.0	83.0
SW	3.7	1.3	1.9	.0	.0	.0	.0	7.2	7.1	1.0	.4	.0	.5	.0	83.9
W	3.1	4.1	1.9	.0	.0	.0	.0	7.2	3.3	1.4	.0	.0	.5	.0	87.6
NW	4.2	.0	1.3	.0	.0	.0	.0	5.5	5.8	3.4	1.0	.0	.0	.0	84.3
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	4.1	.8	.8	.0	.0	.0	.0	5.7	2.5	3.3	.0	.0	3.3	.0	85.2
TOT PCT	4.0	1.8	1.5	.0	.0	.0	.0	7.3	4.5	1.4	1.5	.0	1.4	.0	84.0
TOT OBS:	1623														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							NO SIG WEA
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FGD WD PCPN	FGD WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	
06003	1.6	.5	.2	.0	.0	.0	.0	2.3	3.0	1.2	1.2	.0	.9	.0	91.4
06009	4.1	2.5	2.5	.0	.0	.0	.0	9.1	5.0	3.2	3.2	.0	1.4	.0	78.2
12015	6.6	2.8	2.6	.0	.0	.0	.0	11.7	5.9	.7	.7	.0	1.2	.0	79.8
18021	3.7	2.1	1.2	.0	.0	.0	.0	6.7	4.4	.0	1.9	.0	2.3	.0	84.7
TOT PCT	4.0	2.0	1.6	.0	.0	.0	.0	7.5	4.6	1.3	1.7	.0	1.4	.0	83.5
TOT OBS:	1727														

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WNO DIR	WIND SPEED (KNOTS)							48+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)						
	0-3	4-10	11-21	22-33	34-47	00	03					06	09	12	15	18	21	
N	2.3	9.8	4.7	.1	.0	.0	16.9	8.5	20.5	15.1	18.3	17.1	13.7	9.3	14.9	20.8		
NE	1.7	8.3	3.4	.1	.0	.0	13.5	8.3	12.4	28.3	10.9	17.1	11.7	14.4	14.8	17.7		
E	1.8	3.8	.4	.0	.0	.0	6.1	5.6	3.9	6.1	5.5	8.3	7.7	8.5	7.5	2.1		
SE	2.1	5.0	.5	.1	.0	.0	7.6	6.0	7.7	8.0	7.1	6.6	9.6	9.7	7.8	2.3		
S	2.3	10.2	1.7	.0	.0	.0	14.2	6.8	10.8	1.4	10.6	8.3	18.5	23.3	18.7	14.5		
SW	1.9	12.1	2.0	.0	.0	.0	16.1	7.4	16.5	15.6	16.6	13.3	16.8	13.6	15.5	16.1		
W	1.7	6.8	.9	.0	.0	.0	9.4	6.5	11.2	9.4	11.5	11.3	8.3	8.9	6.5	7.6		
NW	1.8	5.1	.8	.1	.0	.0	7.7	6.4	10.3	12.3	8.9	4.5	5.6	8.9	4.5	13.1		
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
CALM	8.6						8.6	.0	6.6	3.8	10.6	13.5	8.1	3.4	9.8	5.8		
TOT OBS	587	1478	348	8	1	0	2422		517	53	501	133	483	59	521	155		
TOT PCT	24.2	61.0	14.4	.3	.0	.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0		

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)				
	0-6	7-16	17-27	28-40	41+						00	03	06	09	18
N	6.8	9.4	.7	.0	.0			16.9	8.5	20.0	18.1	13.2	16.2		
NE	5.4	7.4	.6	.0	.0			13.5	8.3	13.9	12.2	12.0	15.5		
E	4.5	1.5	.0	.0	.0			6.1	5.6	4.1	6.1	7.8	6.3		
SE	4.9	2.7	.0	.0	.0			7.6	6.0	7.8	7.0	9.6	6.5		
S	7.6	6.6	.0	.0	.0			14.2	6.8	10.0	10.1	19.0	17.7		
SW	7.3	8.6	.2	.0	.0			16.1	7.4	16.4	15.9	16.5	15.6		
W	5.6	3.6	.1	.0	.0			9.4	6.5	11.1	11.5	8.3	6.7		
NW	4.5	3.1	.1	.0	.0			7.7	6.4	10.5	8.0	6.0	6.5		
VAR	.0	.0	.0	.0	.0			.0	.0	.0	.0	.0	.0		
CALM	8.6							8.6	.0	6.3	11.2	7.6	8.9		
TOT OBS	1338	1041	41	2	0	2422			6.6	570	634	542	676		
TOT PCT	55.2	43.0	1.7	.1	.0			100.0		100.0	100.0	100.0	100.0		

PERIOD: (PRIMARY) 1932-1978
(OVER-ALL) 1875-1978

FEBRUARY

AREA 0035 BUENAVENTURA SW
1.9N 80.9W

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)			48+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47				
0000	6.3	13.7	62.5	17.0	.4	.2	.0	7.1	100.0	570
0600	11.2	15.6	59.9	13.2	.0	.0	.0	6.2	100.0	634
1200	7.6	17.5	64.4	10.3	.2	.0	.0	6.3	100.0	542
1800	8.9	15.8	58.1	16.4	.7	.0	.0	6.8	100.0	676
TOT	208	379	1478	348	8	1	0	6.6		2422
PCT	8.6	15.6	61.0	14.4	.3	*	.0		100.0	

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBS	TOTAL OBS	MEAN CLOUD COVER
N	3.1	2.9	4.7	5.2		5.3
NE	2.3	2.6	3.3	3.0		5.0
E	1.7	.6	2.5	1.3		4.9
SE	1.9	1.3	2.6	2.5		5.2
S	2.1	2.1	6.6	5.8		5.9
SW	2.2	1.8	7.5	6.5		6.0
W	1.1	1.6	3.4	3.4		5.8
NW	.9	1.5	2.7	1.4		5.4
VAR	.0	.0	.0	.0		.0
CALM	1.9	1.9	2.3	2.0		4.8
TOT OBS	211	198	436	380	1225	5.5
TOT PCT	17.2	16.2	35.6	31.0	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH > 4/8)
AND OCCURRENCE OF NH < 5/8 BY WIND DIRECTION

	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH < 5/8 ANY HGT	TOTAL OBS
N	.2	.0	.2	1.5	2.4	1.0	.8	.2	.0	.1	9.5	
NE	.1	.0	.1	.9	1.5	.3	.2	.2	.0	.1	7.8	
E	.0	.0	.1	.3	.7	.2	.2	.0	.1	.1	4.3	
SE	.1	.1	.1	.6	1.5	.3	.2	.1	.0	*	5.2	
S	.0	.1	.2	1.7	3.8	1.8	.4	.2	.0	.3	8.1	
SW	.2	*	.6	1.7	3.7	2.1	.7	.1	.3	.4	8.3	
W	.0	.0	.3	.6	2.2	.8	.6	.1	.3	.0	4.5	
NW	.1	.0	*	.5	1.2	.4	.2	.2	*	.0	4.0	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.0	.3	1.2	.6	.2	.3	.0	.2	.1	5.1	
TOT OBS	7	2	23	110	215	88	44	14	11	15	696	1225
TOT PCT	.6	.2	1.9	9.0	17.6	7.2	3.6	1.1	.9	1.2	56.8	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE
OF CEILING HEIGHT (NH > 4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)							
	= OR >10	= OR >5	= OR >2	= OR >1	= OR >1/2	= OR >1/4	= OR >50YD	= OR >0
= NH > 6500	1.9	2.3	2.3	2.3	2.3	2.3	2.3	2.3
= NH > 5000	2.6	3.4	3.4	3.4	3.4	3.4	3.4	3.4
= NH > 3500	5.3	7.0	7.0	7.0	7.0	7.0	7.0	7.0
= NH > 2000	10.8	13.6	13.8	13.8	13.8	13.8	13.8	13.8
= NH > 1000	24.6	30.6	31.3	31.3	31.3	31.4	31.4	31.4
= NH > 600	31.5	39.1	40.5	40.7	40.8	40.9	40.9	40.9
= NH > 300	32.9	40.9	42.3	42.6	42.6	42.7	42.8	42.8
= NH > 150	32.9	40.9	42.6	42.9	43.0	43.0	43.1	43.1
= NH > 0	33.1	41.3	43.1	43.3	43.4	43.6	43.7	43.7
TOTAL	428	533	557	560	561	563	564	564

TOTAL NUMBER OF OBS: 1292

PCT FREQ NH < 5/8: 56.3

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

	0	1	2	3	4	5	6	7	8	OBS	TOTAL OBS
	9.0	11.4	13.1	11.8	9.6	7.5	8.6	8.8	20.0	.3	1401

PERIOD: (PRIMARY) 1932-1978
(OVER-ALL) 1875-1978

FEBRUARY

AREA 0035 BUENAVENTURA SW
1.9N 80.9W

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.1	.1	.0	.1	.0	.0	.0	.2	
	NO PCP	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1	
	TOT %	.0	.0	.0	.1	.1	.1	.1	.0	.0	.0	.3	
1/2<1	PCP	.0	.0	.0	.0	*	*	.0	.0	.0	.0	.1	
	NO PCP	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	
	TOT %	.1	.0	.0	.0	*	*	.0	.0	.0	.0	.2	
1<2	PCP	.1	.0	.0	.1	.1	.1	.0	.0	.0	.0	.3	
	NO PCP	.0	.1	.0	.0	.1	.0	.0	.0	.0	.0	.1	
	TOT %	.1	.1	.0	.1	.1	.1	.0	.0	.0	.0	.4	
2<5	PCP	.2	.1	.1	.1	.1	.2	.1	.0	.0	.1	1.1	
	NO PCP	.4	.2	.1	.1	*	.3	.1	.0	.0	.1	1.3	
	TOT %	.6	.3	.1	.2	.2	.5	.3	.0	.0	.3	2.4	
5<10	PCP	.8	.4	.1	.3	.4	.6	.2	.1	.0	.2	3.1	
	NO PCP	2.9	3.3	1.3	1.3	1.6	1.4	1.1	.5	.0	.9	14.3	
	TOT %	3.7	3.7	1.4	1.7	2.0	2.0	1.3	.6	.0	1.1	17.4	
10+	PCP	.6	.1	.1	.1	.8	.4	.3	.3	.0	.1	2.6	
	NO PCP	11.9	9.8	4.8	6.0	11.9	14.0	7.0	5.1	.0	6.1	76.7	
	TOT %	12.5	9.9	4.9	6.1	12.7	14.4	7.3	5.4	.0	6.2	79.4	
TOT OBS													1585
TOT PCT													16.9 14.0 6.4 8.1 15.0 17.0 8.9 6.0 .0 7.6 100.0

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.1	.1	.0	.0	.0	.0	.1	
	11-21	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.1	
	22+	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.1	
	TOT %	.0	.0	.0	.1	.1	.1	.1	.0	.0	.0	.2	
1/2<1	0-3	.1	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1	
	4-10	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	
	11-21	.0	.0	.0	.0	*	*	.0	.0	.0	.0	.1	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.1	.0	.0	.0	*	*	.1	.0	.0	.0	.2	
1<2	0-3	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1	
	4-10	.1	.1	.0	.1	.1	.2	.0	.0	.0	.0	.4	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.1	.1	.0	.1	.1	.2	.0	.0	.0	.0	.5	
2<5	0-3	.1	.1	*	*	*	.1	.0	.1	.0	.3	.6	
	4-10	.2	.2	.0	.1	.2	.4	.2	.1	.0	.0	1.4	
	11-21	.3	.1	.1	.1	.0	.1	.0	.0	.0	.0	.6	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.6	.3	.1	.1	.2	.6	.2	.1	.0	.3	2.6	
5<10	0-3	.7	.6	.5	.4	.4	.4	.2	.2	.0	1.3	4.6	
	4-10	1.6	2.2	.8	1.0	1.3	1.6	.9	.3	.0	.9	9.8	
	11-21	1.2	.5	.0	.1	.1	.4	.2	.2	.0	.0	2.7	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	3.5	3.3	1.3	1.5	1.9	2.4	1.3	.7	.0	1.3	17.2	
10+	0-3	1.5	1.0	1.2	1.7	1.7	1.6	1.4	1.3	.0	7.1	18.6	
	4-10	7.5	5.4	3.0	3.6	8.3	10.3	5.8	4.4	.0	.0	48.5	
	11-21	3.8	3.0	.4	.4	1.3	1.8	.6	.5	.0	.0	11.8	
	22+	.2	.1	*	.1	.0	.0	.0	.1	.0	.0	.4	
	TOT %	13.0	9.5	4.6	5.8	11.3	13.8	7.8	6.3	.0	7.1	79.3	
TOT OBS													1832
TOT PCT													17.3 13.2 6.0 7.5 13.7 17.1 9.4 7.2 .0 8.7 100.0

FEBRUARY

PERIOD: (PRIMARY) 1932-1978
(OVER-ALL) 1875-1978AREA 0035 BUENAVENTURA SW
1.9N 80.9W

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET) NH >4/8; AND
OCCURRENCE OF NH <3/8 BY HOUR

HOUR (GMT)	000	150	300	600	1000	2000	3500	5000	4500	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00003	.3	.6	1.4	5.0	13.6	6.6	3.6	1.7	.6	.6	33.8	66.7	361
06009	1.0	.0	1.3	10.2	18.5	5.1	3.8	.0	1.0	2.9	43.6	56.4	314
12015	.3	.6	3.6	12.2	18.8	7.7	3.9	1.8	1.2	1.5	51.5	48.5	336
18021	.6	.0	1.2	9.8	18.1	7.1	2.8	.6	.6	.9	41.7	58.3	326
TOT	7	4	25	123	229	89	47	14	11	19	568	769	1337
PCT	.5	.3	1.9	9.2	17.1	6.7	3.5	1.0	.8	1.4	42.5	57.5	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.0	.2	.4	2.3	12.1	85.0	472
06009	.0	.2	.8	2.5	22.1	74.4	520
12015	.4	.2	.4	2.9	17.8	78.2	490
18021	.4	.2	.6	2.7	16.9	79.1	484
TOT	4	4	11	50	334	1523	1926
PCT	.2	.2	.6	2.6	17.3	79.1	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR
CEILING HGT (FEET) NH >4/8, BY HOUR

HOUR (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND 5+	NH <5/8 AND 5+	TOTAL OBS
00003	.3	2.6	8.6	26.7	64.7	348
06009	1.0	2.3	14.9	31.5	59.6	302
12015	.3	4.6	18.3	33.6	48.0	327
18021	.6	2.2	12.4	30.8	56.8	315
TOT	7	38	174	395	723	1292
PCT	.5	2.9	13.5	30.6	56.0	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
95/99	.0	.0	.0	.1	.0	.0	.0	.0	1	.1
90/94	.0	.0	.0	.0	.1	.0	.0	.0	1	.1
85/89	.0	.0	.0	.0	.3	1.6	.3	.0	33	2.2
80/84	.0	.0	.0	.0	.8	16.3	15.4	4.2	529	34.6
75/79	.0	.0	.0	.0	.2	7.5	26.6	16.5	930	60.8
70/74	.0	.0	.0	.0	.0	.0	.6	1.7	35	2.3
TOT	0	0	0	1	20	388	809	311	1529	100.0
PCT	.0	.0	.0	.1	1.3	25.4	52.9	20.3		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
95/99	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0
90/94	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0
85/89	.3	.1	.1	.2	.5	.3	.2	.1	.0	.3
80/84	5.9	6.2	3.1	2.2	3.8	5.5	3.0	2.7	.0	2.1
75/79	8.5	7.4	4.2	6.4	10.5	10.7	5.7	2.6	.0	4.8
70/74	.2	.5	.3	.3	.4	.3	.1	.1	.0	.1
TOT	15.0	14.2	7.7	9.1	15.3	17.0	9.0	5.5	.0	7.2

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	86	84	82	79	76	74	70	79.1	389
06009	84	83	81	78	75	72	69	78.0	682
12015	86	84	81	78	74	73	70	78.0	596
18021	95	88	85	80	76	73	72	80.4	682
TOT	95	86	83	79	75	73	69	78.9	2517

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-39	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	.0	1.0	26.5	57.0	15.5	83	412
06009	.0	.0	.2	15.3	58.7	25.7	86	443
12015	.0	.0	.5	15.7	57.0	26.8	86	395
18021	.0	.3	4.1	44.8	37.9	13.0	81	393
TOT	0	1	23	415	869	335	84	1643

FEBRUARY

PERIOD: (PRIMARY) 1932-1978
(OVER-ALL) 1875-1978

TABLE 17

AREA 0035 BUENAVENTURA SW
1.9N 80.9W

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	69 72	73 76	77 80	81 84	85 88	89 92	>92	TOT	W FOG	NO FOG
14/16	.0	.0	.0	.0	.0	.0	.1	1	.0	.1
11/13	.0	.0	.0	.0	.1	.1	.0	2	.0	.1
9/10	.0	.0	.1	.1	.1	.1	.0	6	.0	.4
7/8	.0	.0	.4	.5	.4	.0	.0	19	.0	1.2
6	.0	.0	.3	.4	.2	.1	.0	15	.0	1.0
5	.0	.0	.5	.9	.3	.0	.0	25	.0	1.6
4	.0	.1	.9	1.4	.3	.0	.0	41	.0	2.7
3	.0	.2	.9	1.7	.2	.0	.0	45	.0	3.0
2	.1	.4	2.0	2.8	.3	.0	.0	88	.1	5.6
1	.2	.9	5.1	3.7	.0	.0	.0	149	.1	9.7
0	.3	1.0	11.9	3.9	.1	.0	.0	262	.7	16.5
-1	.1	1.8	13.9	2.8	.0	.0	.0	284	.7	17.9
-2	.0	1.7	12.6	1.2	.0	.0	.0	236	.3	15.2
-3	.0	1.5	7.3	.3	.0	.0	.0	140	.1	9.1
-4	.1	1.6	3.5	.2	.0	.0	.0	82	.0	5.4
-5	.0	1.8	2.8	.3	.0	.0	.0	74	.0	4.9
-6	.1	1.0	.8	.0	.0	.0	.0	28	.0	1.8
-7/-8	.0	.8	.7	.0	.0	.0	.0	23	.1	1.4
-9/-10	.1	.0	.1	.0	.0	.0	.0	3	.0	.2
-11/-12	.0	.1	.0	.0	.0	.0	.0	1	.0	.1
TOTAL	14	194	972	307	32	4	1	1524	30	1494
PCT	.9	12.7	63.8	20.1	2.1	.3	.1	100.0	2.0	98.0

PERIOD: (OVER-ALL) 1963-1978

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
41	.6	1.6	.0	.0	.0	.0	2.2	1-3	.9	.6	.0	.0	.0	.0	1.5
1-2	.6	5.2	2.4	.0	.0	.0	8.2	4-10	.2	4.5	.8	.0	.0	.0	5.4
3-4	.2	1.2	3.4	.0	.0	.0	4.8	11-21	.0	2.0	1.9	.0	.0	.0	3.9
5-6	.0	.2	2.2	.1	.0	.0	2.4	22-33	.0	.0	1.2	.0	.0	.0	1.2
7	.0	.0	.6	.2	.0	.0	.8	34-47	.0	.2	.4	.0	.0	.0	.5
8-9	.0	.0	.2	.0	.0	.0	.2	48+	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	PCT	.0	.0	.0	.2	.0	.0	.2
12	.0	.0	.0	.0	.0	.0	.0	1-3	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.1	.0	.0	.1	4-10	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	11-21	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	22-33	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	34-47	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	48+	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	PCT	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	1-3	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	4-10	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	11-21	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	22-33	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	34-47	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.4	8.2	8.7	.4	.0	.0	16.7	48+	.0	.0	.0	.0	.0	.0	12.7

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
41	.4	.6	.0	.0	.0	.0	1.0	1-3	.5	1.0	.0	.0	.0	.0	1.5
1-2	.2	2.1	.0	.0	.0	.0	2.2	4-10	.2	2.8	.4	.0	.0	.0	3.5
3-4	.0	1.2	.0	.0	.0	.0	1.2	11-21	.2	1.6	.2	.0	.0	.0	2.1
5-6	.0	.1	.1	.0	.0	.0	.2	22-33	.0	.5	.0	.2	.0	.0	.7
7	.0	.0	.0	.0	.0	.0	.0	34-47	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	48+	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	PCT	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	1-3	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	4-10	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	11-21	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	22-33	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	34-47	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	48+	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	PCT	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	1-3	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	4-10	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	11-21	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	22-33	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	34-47	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.6	4.0	.1	.0	.0	.0	4.6	48+	.0	.0	.0	.0	.0	.0	7.8

PERIOD: (OVER-ALL) 1963-1978

FEBRUARY

AREA 0035 BUENAVENTURA SW
1.9N 80.9W

TABLE 1a (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	1.1	1.0	.0	.0	.0	.0	2.2	.8	.9	.0	.0	.0	.0	1.7	
1-2	1.2	7.5	1.4	.0	.0	.0	10.1	.5	9.3	1.6	.0	.0	.0	11.4	
3-4	.0	3.2	1.0	.0	.0	.0	4.2	.0	3.0	1.9	.0	.0	.0	4.9	
5-6	.2	.4	.3	.0	.0	.0	.9	.0	.2	.4	.0	.0	.0	.6	
7	.0	.1	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.1	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	2.5	12.5	2.4	.0	.0	.0	17.7	1.3	13.6	3.8	.0	.0	.0	18.7	

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.5	.7	.0	.0	.0	.0	1.2	.2	.6	.3	.0	.0	.0	1.1	
1-2	.7	4.5	.1	.0	.0	.0	5.3	.4	1.8	.2	.0	.0	.0	2.4	
3-4	.0	1.2	.1	.0	.0	.0	1.3	.0	.6	.3	.0	.0	.0	.9	
5-6	.0	.0	.0	.0	.0	.0	.8	.0	.0	.0	.0	.0	.0	.0	
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	1.2	6.4	1.0	.0	.0	.0	8.5	.6	3.0	.8	.0	.0	.0	4.5	93.3

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	13.0	6.9	.3	.0	.0	.0	20.2	
1-2	6.0	36.3	6.5	.0	.0	.0	48.9	
3-4	.5	13.6	8.3	.2	.0	.0	22.3	
5-6	.2	1.4	4.7	.3	.0	.0	6.3	
7	.0	.2	.9	.2	.0	.0	1.4	
8-9	.0	.2	.2	.0	.0	.0	.3	
10-11	.0	.0	.0	.2	.0	.0	.2	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.2	.0	.2	.0	.0	.3	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	19.6	58.7	20.8	.9	.0	.0	100.0	663

PERIOD: (OVER-ALL) 1949-1978

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	5.6	20.0	18.8	4.7	.7	.3	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	550	3
6-7	.3	3.1	5.4	5.2	2.0	.3	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	182	4
8-9	.0	1.6	2.6	2.1	1.2	.4	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	87	4
10-11	.0	2.4	1.6	.5	.3	.4	.0	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	60	4
12-13	.0	.0	1.0	.1	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	15	4
>13	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2	5
INDET	6.7	5.3	3.6	1.8	.5	.2	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	201	2
TOTAL	137	395	362	161	55	16	6	2	2	0	1	0	0	0	0	0	0	0	0	1097	3
PCT	12.5	32.4	33.0	14.7	5.0	1.9	.5	.2	.2	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	100.0	

PERIOD: (PRIMARY) 1930-1977
(OVER-ALL) 1861-1977

MARCH

AREA 0035 BUENAVENTURA SW
1.9N 80.8W

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							NO SIG WEA
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	
N	1.4	1.9	.3	.0	.0	.0	.0	3.6	2.1	2.2	.4	.0	3.5	.0	88.2
NE	.7	.3	.4	.0	.0	.0	.0	1.4	.2	2.2	10.3	.0	3.2	.0	82.8
E	2.5	3.4	.7	.0	.0	.0	.0	6.6	3.2	1.8	11.7	.0	6.2	.7	69.9
SE	3.0	3.2	.8	.0	.0	.0	.0	7.0	1.3	1.3	12.3	.0	3.6	.0	74.9
S	5.8	4.9	.6	.0	.0	.0	.0	9.3	5.1	1.9	5.3	.0	3.3	.0	75.8
SW	2.6	1.0	.5	.0	.0	.0	.0	4.8	5.6	3.1	.8	.0	1.9	.3	83.5
W	5.2	.0	1.2	.0	.0	.0	.0	6.3	1.5	4.6	.0	.0	.6	.0	87.0
NW	4.2	.4	1.8	.0	.0	.0	.0	6.4	4.0	3.6	.4	.0	4.0	.0	81.6
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.5	1.0	.0	.0	.0	.0	.0	1.5	1.5	2.6	.5	.0	4.1	.0	89.7
TOT PCT	2.7	1.6	.6	.0	.0	.0	.0	4.9	2.8	2.6	4.3	.0	3.2	.1	82.3
TOT OBS:	1843														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							NO SIG WEA
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	
00003	1.7	1.5	.2	.0	.0	.0	.0	3.3	.6	1.9	3.3	.0	2.5	.0	88.3
06009	2.5	.8	1.3	.0	.0	.0	.0	4.7	2.1	6.8	5.3	.0	3.2	.0	78.1
12015	4.8	1.9	.8	.0	.0	.0	.0	7.5	6.9	1.5	2.7	.0	3.4	.2	77.8
18021	2.1	2.3	.2	.0	.0	.0	.0	4.7	1.8	.4	5.3	.0	3.5	.2	84.4
TOT PCT	2.8	1.6	.6	.0	.0	.0	.0	5.1	2.8	2.6	4.2	.0	3.1	.1	82.2
TOT OBS:	1940														

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WNO DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	48+	00				03	06	09	12	15	18	21	
N	2.5	8.6	2.4	.1	.0	.0		13.6	7.6		19.7	14.2	12.9	8.5	9.7	10.7	14.3	14.1
NE	2.0	9.3	4.1	.1	.0	.0		15.5	8.2		14.6	24.7	13.2	17.2	15.0	18.8	14.8	21.5
E	1.8	5.8	.8	.0	.0	.0		8.3	6.2		4.1	16.1	7.5	9.1	8.8	19.2	9.1	10.1
SE	2.1	4.7	.2	.0	.0	.0		7.0	5.2		3.6	13.4	7.0	7.5	7.1	8.1	8.1	8.2
S	2.4	8.6	1.1	.0	.0	.0		12.2	6.4		7.5	4.7	11.4	8.7	17.3	14.9	16.3	5.8
SW	3.4	11.0	1.1	.0	.0	.0		15.5	6.0		16.1	8.9	15.2	19.5	16.7	10.4	15.5	12.0
W	2.7	6.3	.4	.0	.0	.0		9.4	5.5		14.9	10.8	11.0	6.7	6.6	3.6	7.0	10.5
NW	1.9	4.5	.3	.0	.0	.0		6.8	5.5		11.9	1.8	8.2	4.3	4.9	2.6	5.0	6.2
VAR	.0	.0	.0	.0	.0	.0		.0	.0		.0	.0	.0	.0	.0	.0	.0	.0
CALM	11.6							11.6	.0		7.6	5.3	13.6	18.6	14.0	11.7	10.0	11.6
TOT OBS	889	1722	308	6	1	0	2926		5.8		554	95	579	204	559	77	660	198
TOT PCT	30.4	58.9	10.5	.2	.0	.0		100.0			100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	0-6	WIND SPEED (KNOTS)				41+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)				
		7-16	17-27	28-40	00 03					06 09	12 15	18 21		
N	6.3	6.9	.4	.0	.0		13.6	7.6	18.9	11.7	9.8	14.3		
NE	6.8	8.0	.6	.0	.0		15.5	8.2	16.1	14.2	15.4	16.3		
E	5.2	3.0	.1	.0	.0		8.3	6.2	5.8	7.9	10.1	9.3		
SE	5.2	1.8	.0	.0	.0		7.0	5.2	5.0	7.1	7.2	8.1		
S	7.5	4.5	.2	.0	.0		12.2	6.4	7.1	10.7	17.0	13.9		
SW	9.9	5.5	.1	.0	.0		15.5	6.0	15.1	16.3	16.0	14.7		
W	6.6	2.9	.0	.0	.0		9.4	5.5	14.3	9.9	6.2	7.8		
NW	4.7	2.1	.0	.0	.0		6.8	5.5	10.4	7.2	4.6	5.2		
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0		
CALM	11.6						11.6	.0	7.2	14.9	13.7	10.4		
TOT OBS	1869	1017	39	1	0	2926		5.8	649	783	636	858		
TOT PCT	63.9	34.8	1.3	.0	.0		100.0		100.0	100.0	100.0	100.0		

PERIOD: (PRIMARY) 1930-1977
(OVER-ALL) 1861-1977

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1.9N 80.8W

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)				48+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47					
00003	7.2	17.3	63.9	11.6	.0	.0	.0	.0	6.4	100.0	649
06009	14.9	18.6	59.0	7.3	.1	.0	.0	.0	5.2	100.0	783
12013	13.7	20.9	55.8	9.3	.2	.0	.0	.0	5.4	100.0	626
18021	10.4	18.4	57.1	13.6	.5	.0	.0	.0	6.2	100.0	858
TUT	340	549	1722	308	6	1	0	5.8			2926
PCT	11.6	18.8	58.9	10.5	.2	*	.0		100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	3.0	2.4	5.1	4.7		5.2
NE	3.1	2.1	4.0	3.0		4.7
E	1.8	.7	1.6	1.8		4.8
SE	1.6	1.1	1.3	1.4		4.4
S	2.2	2.5	4.7	5.4		5.7
SW	2.7	2.5	6.8	5.6		5.6
W	1.5	1.7	4.7	3.1		5.6
NW	1.0	1.0	2.7	1.9		5.5
VAR	.0	.0	.0	.0		.0
CALM	2.9	1.7	3.8	2.9		4.9
TOT OBS	262	207	461	397	1327	5.3
TOT PCT	19.7	15.6	34.7	29.9	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8)
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+ ANY HGT	NH <5/8 TOTAL OBS
N	.1	.1	.3	1.1	1.8	.9	.8	.1	.4	.6	9.2
NE	.0	.2	.2	.5	1.4	.7	.5	.5	.2	.2	8.0
E	.0	.0	.2	.2	.8	.7	.2	.0	.0	.3	3.5
SE	.0	.0	.1	.3	.6	.5	.1	.1	.0	.1	3.5
S	.2	.0	.4	2.3	3.0	.5	.4	.1	.1	.1	7.8
SW	.2	.2	.3	1.6	2.8	1.2	.7	.3	.3	.1	10.1
W	.0	.0	.2	1.1	2.4	1.1	.3	.1	.0	.2	5.6
NW	.0	.1	.1	.7	1.2	.6	.2	.1	.0	.1	3.6
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.2	.8	1.2	.7	.2	.2	.2	.2	7.6
TOT OBS	5	7	27	115	200	92	42	17	15	25	782
TOT PCT	.4	.5	2.0	8.7	15.1	6.9	3.2	1.3	1.1	1.9	58.9

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE
OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)							
	= OR >10	= OR >5	= OR >2	= OR >1	= OR >1/2	= OR >1/4	= OR >50YD	= OR >0
= OR >6500	2.7	3.0	3.0	3.0	3.0	3.0	3.0	3.0
= OR >5000	3.7	4.3	4.5	4.5	4.5	4.5	4.5	4.5
= OR >3500	6.5	7.5	7.7	7.7	7.7	7.7	7.7	7.7
= OR >2000	12.2	14.3	14.7	14.7	14.7	14.7	14.7	14.7
= OR >1000	23.8	28.8	29.7	29.7	29.7	29.7	29.7	29.7
= OR >600	29.5	36.9	38.0	38.1	38.1	38.1	38.1	38.1
= OR >300	30.5	38.6	39.9	40.1	40.1	40.2	40.2	40.2
= OR >150	30.7	39.0	40.3	40.6	40.6	40.7	40.7	40.7
= OR >0	30.9	39.2	40.7	41.0	41.0	41.0	41.0	41.0
TOTAL	429	545	565	569	569	570	570	570

TOTAL NUMBER OF OBS: 1389

PCT FREQ NH <5/8: 59.0

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

	0	1	2	3	4	5	6	7	8	OBSCD	TOTAL OBS
	14.2	12.1	12.6	11.1	8.5	6.7	8.4	8.2	18.1	.1	1498

PERIOD: (PRIMARY) 1930-1977
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1.9N 80.8W

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	*	*	.0	.0	.0	.0	.0	.0	.1	
	NO PCP	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.1	
	TOT %	.0	.1	*	*	.0	.0	.0	.0	.0	.0	.1	
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.2	
	TOT %	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.2	
1<2	PCP	.0	.0	.0	.0	.1	.1	.0	.1	.0	.0	.3	
	NO PCP	.1	.2	.1	.0	.1	.0	.0	.0	.0	.0	.3	
	TOT %	.1	.2	.1	.0	.2	.1	.0	.1	.0	.0	.6	
2<5	PCP	.1	*	*	.1	.3	.1	.0	.0	.0	.0	.7	
	NO PCP	.2	.1	.2	.1	.1	.2	.0	*	.0	.3	1.1	
	TOT %	.3	.1	.2	.2	.4	.3	.0	*	.0	.3	1.7	
5<10	PCP	.1	.2	.2	.3	.4	.5	.4	*	.0	.0	2.0	
	NO PCP	2.4	5.1	2.5	2.0	2.6	2.7	1.4	.9	.0	2.2	21.8	
	TOT %	2.4	5.2	2.7	2.3	3.0	3.2	1.8	.9	.0	2.2	23.8	
10+	PCP	.4	*	.2	.1	.5	*	.2	.3	.0	.2	1.9	
	NO PCP	11.2	10.0	4.3	3.8	9.5	12.9	7.2	4.8	.0	8.0	71.7	
	TOT %	11.6	10.0	4.4	3.9	10.0	12.9	7.4	5.2	.0	8.2	73.6	
TOT OBS													
TOT PCT													
		14.3	15.7	7.4	6.4	13.6	16.6	9.2	6.2	.0	10.7	100.0	1829

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	*	.0	.0	.0	.0	.0	.0	.0	.0	*	
	11-21	.0	.0	*	*	.0	.0	.0	.0	.0	.0	*	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	*	*	*	.0	.0	.0	.0	.0	.0	.1	
1/2<1	0-3	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.1	
	4-10	.0	*	.0	.0	.0	*	.0	.0	.0	.0	.1	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.1	.0	.0	.0	*	.0	.0	.0	.0	.2	
1<2	0-3	*	*	.0	.0	.0	.0	*	*	.0	.0	.1	
	4-10	.0	.0	*	.0	*	*	*	*	.0	.0	.2	
	11-21	.0	.1	.0	.0	.1	.1	.0	.0	.0	.0	.3	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	*	.1	*	.0	.1	.1	*	.1	.0	.0	.6	
2<5	0-3	*	.0	*	.1	*	.2	.0	.0	.0	.6	1.0	
	4-10	.2	.1	.1	.1	.3	.2	.0	*	.0	.0	1.0	
	11-21	*	.3	.0	.0	*	.0	.0	.0	.0	.0	.3	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.3	.4	.2	.2	.3	.4	.0	*	.0	.6	2.3	
5<10	0-3	.6	.5	.5	.8	.5	.9	.5	.5	.0	2.7	7.4	
	4-10	1.4	3.0	1.6	1.1	1.9	2.3	1.4	.9	.0		13.6	
	11-21	.4	1.2	.2	*	.3	.2	.1	*	.0		2.4	
	22+	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.1	
	TOT %	2.4	4.8	2.3	2.0	2.6	3.3	2.0	1.4	.0	2.7	23.5	
10+	0-3	2.2	1.2	.9	.9	1.7	2.6	2.7	1.4	.0	8.5	22.0	
	4-10	7.6	5.4	2.5	2.6	6.3	9.6	5.3	3.9	.0		43.2	
	11-21	2.0	2.6	.5	.1	.9	1.1	.5	.4	.0		8.0	
	22+	*	.1	.0	.0	*	.0	.0	.0	.0	.0	.1	
	TOT %	11.8	9.3	3.9	3.5	8.9	13.2	8.5	5.7	.0	8.5	73.3	
TOT OBS													
TOT PCT													
		14.5	14.8	6.5	5.6	12.0	17.2	10.5	7.2	.0	11.7	100.0	2174

PERIOD: (PRIMARY) 1930-1977
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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NM >4/8) AND
OCCURRENCE OF NM <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00003	.0	.3	2.7	5.4	11.3	6.2	2.4	.8	.8	1.1	30.8	69.2	373
06009	.3	.3	.6	7.1	14.2	6.8	2.8	1.5	1.8	2.8	38.2	61.8	325
12015	.8	1.3	2.7	13.7	18.5	7.2	4.8	1.6	.8	2.4	53.9	46.1	373
18021	.3	.0	1.9	6.4	13.8	6.6	2.4	1.6	1.1	1.1	35.0	65.0	377
TOT	5	7	29	118	209	97	45	20	16	26	572	876	1448
PCT	.3	.5	2.0	8.1	14.4	6.7	3.1	1.4	1.1	1.8	39.5	60.5	100.0

TABLE 11

PERCENT FREQUENCY VS BY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.0	.2	.2	1.9	17.1	80.6	931
06009	.0	.2	.5	2.7	27.0	69.6	599
12015	.4	.2	.6	3.2	26.3	69.3	528
18021	.0	.3	1.0	1.6	23.2	73.9	612
TOT	2	5	13	53	534	1663	2270
PCT	.1	.2	.6	2.3	23.5	73.3	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VS BY (NM) AND/OR
CEILING HGT (FEET, NM >4/8) BY HOUR

HOUR (GMT)	<150 <500	<600 <1	<1000 <5	1000+ AND 5+	NH <5/8 AND 5+	TOTAL OBS
00003	.0	3.1	10.3	22.5	67.2	351
06009	.3	1.3	9.5	30.4	60.1	316
12015	.8	5.0	20.3	35.3	44.4	360
18021	.3	2.2	9.4	27.1	63.5	362
TOT	5	41	173	400	816	1389
PCT	.4	3.0	12.5	28.8	58.7	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
90/94	.0	.0	.0	.1	.0	.0	.0	.0	1	.1
85/89	.0	.0	.0	.1	.6	1.8	.1	.1	47	2.7
80/84	.0	.0	.0	.0	.9	11.5	19.1	4.6	602	35.1
75/79	.0	.0	.0	.1	.1	5.2	30.8	20.9	979	57.1
70/74	.0	.0	.0	.0	.0	.2	1.3	3.4	84	4.9
65/69	.0	.0	.0	.0	.0	.1	.0	.1	2	.1
TOTAL	0	0	0	2	27	323	881	481	1715	100.0
PCT	.0	.0	.0	.2	1.6	18.8	51.4	28.0		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
90/94	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
85/89	.5	.6	.0	.2	.4	.4	.2	.1	.0	.3
80/84	5.2	5.8	2.8	2.2	4.1	4.7	4.0	2.6	.0	3.7
75/79	7.5	9.4	4.2	4.7	8.7	9.2	4.6	3.1	.0	5.6
70/74	.3	.6	.5	.3	1.3	.8	.2	.1	.0	.8
65/69	.0	.1	.0	.0	.1	.0	.0	.0	.0	.0
TOTAL	13.5	16.4	7.6	7.4	14.5	15.1	9.1	6.0	.0	10.4

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	91	84	82	79	75	72	65	78.8	678
06009	88	82	81	78	74	71	68	77.6	829
12015	91	83	81	78	74	71	70	77.4	664
18021	94	88	86	80	76	73	72	80.5	840
TOT	94	86	83	79	74	72	65	78.7	3011

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-39	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	.2	1.3	17.0	61.8	19.6	85	448
06009	.0	.0	.7	8.0	47.0	44.3	88	460
12015	.0	.2	.2	8.4	52.8	38.3	87	441
18021	.0	.2	4.1	39.4	44.5	11.8	81	467
TOT	0	3	29	334	934	516	85	1816

MARCH

PERIOD: (PRIMARY) 1930-1977
(OVER-ALL) 1861-1977

TABLE 17

AREA 0035 BUENAVENTURA SW
1.9N 80.8W

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	65 68	69 72	73 76	77 80	81 84	85 88	89 92	>92	TOT	N FOG	NO FOG
14/16	.0	.0	.0	.0	.1	.0	.0	.1	2	.0	.1
11/13	.0	.0	.0	.0	.1	.1	.2	.0	7	.0	.4
9/10	.0	.0	.0	.1	.0	.3	.0	.0	7	.0	.4
7/8	.0	.0	.0	.1	.5	.4	.0	.0	16	.0	.9
6	.0	.0	.0	.1	.2	.4	.0	.0	13	.0	.7
5	.0	.0	.2	.7	.7	.4	.1	.0	36	.0	2.0
4	.0	.0	.3	1.2	1.0	.4	.0	.0	51	.2	2.7
3	.0	.0	.3	1.3	1.6	.2	.0	.0	61	.0	3.4
2	.0	.1	1.0	3.3	2.8	.4	.0	.0	133	.2	7.3
1	.0	.1	1.9	5.4	3.7	.1	.0	.0	198	.6	10.6
0	.1	.3	3.2	10.8	4.3	.1	.0	.0	332	1.2	17.5
-1	.0	.3	2.6	12.0	2.6	.0	.0	.0	312	1.6	15.9
-2	.0	.1	1.7	10.4	2.0	.0	.0	.0	250	.3	13.7
-3	.1	.1	1.4	5.6	.7	.0	.0	.0	140	.3	7.6
-4	.0	.2	1.4	3.5	.2	.0	.0	.0	95	.0	5.4
-5	.0	.0	1.3	2.2	.1	.0	.0	.0	64	.0	3.6
-6	.0	.0	.7	1.4	.0	.0	.0	.0	36	.0	2.0
-7/-8	.0	.1	.5	.5	.0	.0	.0	.0	18	.0	1.0
-9/-10	.0	.0	.2	.0	.0	.0	.0	.0	3	.0	.2
-11/-13	.1	.0	.0	.0	.0	.0	.0	.0	1	.0	.1
TOTAL	3	20	294	364	50	1	1775	79	1696		
PCT	.2	1.1	16.6	58.5	20.5	2.8	.3	.1	100.0	4.5	95.5

PERIOD: (OVER-ALL) 1963-1977

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	N						PCT	NE						PCT
	1-3	4-10	11-21	22-33	34-47	48+		1-3	4-10	11-21	22-33	34-47	48+	
<1	1.4	1.5	.1	.0	.0	.0	3.1	.9	.9	.0	.0	.0	.0	1.9
1-2	1.5	5.7	.2	.0	.0	.0	7.4	.4	3.2	2.2	.0	.0	.0	5.8
3-4	.3	2.0	1.0	.0	.0	.0	3.2	.1	2.3	2.0	.0	.0	.0	4.5
5-6	.0	.3	1.1	.1	.0	.0	1.5	.0	.4	.5	.0	.0	.0	.9
7	.0	.1	.2	.0	.0	.0	.4	.0	.0	.2	.1	.1	.0	.5
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.1
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.1
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	3.2	9.6	2.7	.1	.0	.0	15.6	1.3	6.8	5.0	.3	.1	.0	13.8

HGT	E						PCT	SE						PCT
	1-3	4-10	11-21	22-33	34-47	48+		1-3	4-10	11-21	22-33	34-47	48+	
<1	.4	1.0	.0	.0	.0	.0	1.4	.5	.7	.0	.0	.0	.0	1.2
1-2	.5	3.0	.7	.0	.0	.0	4.3	.2	2.3	.2	.0	.0	.0	2.7
3-4	.1	.4	.0	.0	.0	.0	.5	.0	.4	.0	.0	.0	.0	.4
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.0	4.4	.7	.0	.0	.0	6.2	.7	3.3	.2	.0	.0	.0	4.5

PERIOD: (OVER-ALL) 1963-1977

MARCH

AREA 0035 BUENAVENTURA SW
1.9N 80.8W

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	1.0	1.4	.0	.0	.0	.0	2.4	1.4	3.2	.1	.0	.0	.0	4.7
1-2	.9	7.4	.5	.0	.0	.0	8.8	1.5	9.0	.4	.0	.0	.0	10.9
3-4	.2	1.2	.8	.0	.0	.0	2.2	.2	.9	.5	.0	.0	.0	1.7
5-6	.0	.4	.2	.0	.0	.0	.6	.0	.0	.6	.0	.0	.0	.6
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	2.1	10.4	1.5	.0	.0	.0	14.0	3.1	13.2	1.6	.0	.0	.0	17.9

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	1.4	.9	.0	.0	.0	.0	2.3	.9	.5	.0	.0	.0	.0	1.4	
1-2	.8	5.9	.7	.0	.0	.0	7.4	.8	3.2	.3	.0	.0	.0	4.3	
3-4	.1	.8	.1	.0	.0	.0	1.1	.0	.3	.1	.0	.0	.0	.5	
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.1	.0	.0	.0	.0	.1	.0	.1	.0	.0	.0	.0	.1	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	2.4	7.7	.8	.0	.0	.0	10.9	1.7	4.1	.5	.0	.0	.0	6.4	89.3

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	19.6	10.4	.3	.0	.0	.0	30.2	
1-2	7.5	38.7	5.0	.0	.0	.0	51.2	
3-4	1.1	8.0	4.4	.0	.0	.0	13.5	
5-6	.0	1.1	2.3	.1	.0	.0	3.5	
7	.0	.1	.4	.1	.1	.0	.8	
8-9	.0	.4	.0	.1	.0	.0	.5	
10-11	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.1	.0	.0	.0	.1	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	28.2	58.7	12.5	.4	.1	.0	100.0	734

PERIOD: (OVER-ALL) 1949-1977

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	7.3	23.2	12.1	3.7	1.2	.5	.0	.1	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	579	2
6-7	.2	2.4	5.4	3.7	1.7	.5	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	174	4
8-9	.2	.9	2.7	1.2	.5	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	70	4
10-11	.0	1.6	.6	.9	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	39	3
12-13	.0	.0	.8	.1	.5	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	19	5
>13	.0	.0	.0	.4	.1	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	8	6
INDET	13.4	7.1	4.1	.8	.6	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	313	1
TOTAL	254	423	309	132	55	20	7	1	.0	1	.0	.0	.0	.0	.0	.0	.0	.0	.0	1202	3
PCT	21.1	35.2	25.7	11.0	4.6	1.7	.6	.1	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	

APRIL

PERIOD: (PRIMARY) 1932-1977
(OVER-ALL) 1879-1977AREA 0035 BUENAVENTURA SW
1.8N 80.7W

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FGD WQ PCPN	FGD WQ PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
N	1.2	2.5	.0	.0	.0	.0	.0	3.7	6.2	2.1	.4	.0	.6	.6	86.4
NE	1.6	.0	.0	.0	.0	.0	.0	1.6	1.8	1.0	3.6	.0	2.3	.3	89.4
E	.8	3.2	.0	.0	.0	.0	.0	4.0	2.8	1.6	4.0	.0	1.2	.0	86.2
SE	.8	4.8	.8	.0	.0	.0	.0	6.5	1.3	1.3	7.5	.0	.8	.0	82.6
S	3.1	2.0	1.2	.0	.0	.0	.0	6.3	2.6	1.0	.9	.0	.5	.0	88.9
SW	3.0	2.1	1.8	.0	.0	.0	.0	6.7	3.5	2.4	.9	.0	.7	.0	85.8
W	1.0	1.3	.4	.0	.0	.0	.0	2.6	4.9	3.7	.0	.0	.8	.0	88.5
NW	3.2	1.3	1.3	.0	.0	.0	.0	5.8	6.8	1.0	3.9	.0	1.9	.0	80.6
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.9	.9	.0	.0	.0	.0	1.8	3.6	2.7	.9	.0	4.5	.0	86.6
TOT PCT	2.2	2.0	1.1	.0	.0	.0	.0	5.2	3.5	2.0	1.6	.0	1.1	.1	86.7
TOT OBS:	1704														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FGD WQ PCPN	FGD WQ PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
00003	.5	.7	.9	.0	.0	.0	.0	2.0	2.0	1.4	1.4	.0	1.1	.2	92.0
06009	2.3	2.5	.7	.0	.0	.0	.0	5.5	3.2	6.4	2.3	.0	.9	.0	81.8
12015	3.6	2.9	1.4	.0	.0	.0	.0	7.9	6.1	.9	2.0	.0	.7	.0	82.4
18021	2.3	1.9	1.3	.0	.0	.0	.0	5.3	2.3	.0	1.7	.0	1.5	.0	89.2
TOT PCT	2.2	2.0	1.1	.0	.0	.0	.0	5.2	3.4	2.1	1.8	.0	1.1	.1	86.4
TOT OBS:	1792														

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	48+					00	03	06	09	12	15	18	21
N	1.5	4.2	1.2	.1	.0	.0		7.0	7.3	8.2	2.7	8.0	8.3	5.7	3.8	6.0	8.3	
NE	1.2	3.5	.8	* .0	.0	.0		5.5	7.0	5.8	6.8	6.1	6.7	3.8	3.8	5.0	9.3	
E	.7	2.4	.2	.0	.0	.0		3.4	6.4	2.4	6.8	3.1	4.1	3.1	6.7	4.7	1.8	
SE	1.7	5.1	.2	* .0	.0	.0		7.1	5.7	5.0	14.2	7.2	8.3	8.3	15.4	7.7	2.4	
S	3.6	16.2	2.8	.0	.0	.0		22.6	7.1	13.7	19.6	15.6	23.0	29.2	48.1	29.7	22.8	
SW	4.7	20.0	4.8	* .0	.0	.0		29.5	7.5	29.3	26.4	30.4	25.4	32.9	10.6	28.5	27.6	
W	2.1	8.7	1.5	.0	.0	.0		12.2	6.8	20.0	10.1	14.1	8.5	7.1	3.8	8.3	17.5	
NW	1.1	3.7	.3	* .0	.0	.0		5.2	6.1	8.2	5.4	6.5	4.7	2.6	.0	3.5	7.9	
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	7.4							7.4	.0	7.3	8.1	8.8	11.0	7.3	7.7	8.6	2.4	
TOT OBS	384	1547	288	5	0	0	2424			531	37	486	127	519	26	572	126	
TOT PCT	24.1	63.8	11.9	.2	.0	.0		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	

TABLE 3A

WIND DIR	0-6	WIND SPEED (KNOTS)				41+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)				
		7-16	17-27	28-40	00 03					06 09	12 15	18 21		
N	3.7	2.9	.3	.0	.0		7.0	7.3	7.8	8.1	5.6	6.4		
NE	3.1	2.2	.2	.0	.0		5.5	7.0	5.9	6.2	3.8	5.8		
E	2.0	1.4	* .0	.0	.0		3.4	6.4	2.7	3.3	3.3	4.2		
SE	4.8	2.3	* .0	.0	.0		7.1	5.7	5.6	7.4	8.7	6.7		
S	10.9	11.6	.1	.0	.0		22.6	7.1	14.1	17.2	30.1	28.5		
SW	13.0	10.3	.3	* .0	.0		29.5	7.5	29.1	29.4	31.8	28.3		
W	6.8	5.4	.1	.0	.0		12.2	6.8	19.3	13.0	6.9	10.0		
NW	3.2	2.0	* .0	.0	.0		5.2	6.1	8.0	6.2	2.4	4.3		
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0		
CALM	7.4						7.4	.0	7.4	9.3	7.3	5.9		
TOT OBS	1329	1067	27	1	0	2424		6.3	568	613	545	698		
TOT PCT	54.8	44.0	1.1	* .0	.0		100.0		100.0	100.0	100.0	100.0		

PERIOD: (PRIMARY) 1932-1977
(OVER-ALL) 1879-1977

APRIL

AREA 0035 BUENAVENTURA SW
1.8N 80.7W

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)				48+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47					
0000Z	7.4	16.5	66.0	9.7	.4	.0	.0	.0	6.4	100.0	568
0600Z	9.3	13.5	66.2	10.6	.3	.0	.0	.0	6.4	100.0	613
1200Z	7.3	18.7	62.9	11.0	.0	.0	.0	.0	6.4	100.0	545
1800Z	5.9	17.9	60.6	15.5	.1	.0	.0	.0	6.6	100.0	698
TOT	180	404	1547	288	5	0	0	0	6.5		2424
PCT	7.4	16.7	63.8	11.9	.2	.0	.0	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	1.5	.9	2.8	1.6		5.1
NE	1.5	.7	1.9	1.2		4.9
E	.6	.3	1.8	.5		5.4
SE	1.4	1.6	2.1	1.8		4.9
S	4.3	2.7	8.9	6.9		5.4
SW	3.8	5.1	12.5	9.5		5.6
W	1.7	2.3	5.6	2.4		5.3
NW	.6	1.5	1.2	1.5		5.3
VAR	.0	.0	.0	.0		.0
CALM	2.3	1.5	2.8	1.1		4.4
TOT OBS	227	215	513	337	1292	5.3
TOT PCT	17.6	16.6	39.7	26.1	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8)
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

	000 149	150 299	300 599	600 999	1000 1999	2000 3499	2500 4999	5000 6499	6500 7999	8000+	NH <5/8 ANY HGT	TOTAL OBS
.0	.0	.0	.1	.4	1.3	.6	.3	.1	.0	.0	4.0	
.2	.0	.0	.0	.2	.6	.5	.1	.1	.1	.3	3.4	
.0	.0	.0	.0	.2	.7	.4	.1	.1	.0	*	1.8	
.0	.0	.2	.3	.6	1.0	.6	*	.1	.2	3.9		
.1	.0	.4	2.1	3.8	3.0	.7	.2	.0	.4	11.5		
.1	.0	.4	2.5	6.3	3.3	.3	.3	.2	.7	17.0		
.0	.0	.1	1.1	2.0	.9	.3	.0	.1	.2	7.4		
.1	.0	.2	.4	.6	.5	.0	*	.0	.0	3.0		
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
.0	.0	.1	.3	.8	.3	.5	.1	.2	.2	5.3		
5	0	18	97	213	136	37	10	8	26	742		1292
.4	.0	1.4	7.5	16.5	10.5	2.9	.8	.6	2.0	57.4		100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE
OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)				VSBY (NM)			
	= OR >10	= OR >5	= OR >2	= OR >1	= OR >1/2	= OR >1/4	= OR >50YD	= OR >0
= OR >6500	1.7	2.6	2.6	2.6	2.6	2.6	2.6	2.6
= OR >5000	2.3	3.4	3.4	3.4	3.4	3.4	3.4	3.4
= OR >3500	5.1	6.5	6.5	6.5	6.5	6.5	6.5	6.5
= OR >2000	13.3	16.3	16.6	16.6	16.6	16.6	16.6	16.6
= OR >1000	26.8	32.1	32.7	32.7	32.7	32.7	32.7	32.7
= OR >600	31.9	39.1	39.8	39.9	39.9	39.9	39.9	39.9
= OR >300	32.6	40.2	41.2	41.2	41.2	41.2	41.2	41.2
= OR >150	32.6	40.2	41.2	41.2	41.2	41.2	41.2	41.2
= OR >0	32.8	40.4	41.4	41.5	41.5	41.6	41.6	41.6
TOTAL	439	541	554	556	557	557	557	557

TOTAL NUMBER OF OBS: 1339

PCT FREQ NH <5/8: 58.4

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8 OBSCD	TOTAL OBS
10.3	10.7	14.4	11.8	10.2	8.5	8.6	10.0	15.3	1414

PERIOD: (PRIMARY) 1932-1977
(OVER-ALL) 1879-1977

APRIL

TABLE 8

AREA 0035 BUENAVENTURA SW
1.8N 80.7W

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	*	*	.0	.0	.0	.0	.1	.0	.0	.0	.2
	TOT %	.0	*	*	.0	.0	.0	.0	.1	.0	.0	.0	.2
1/2<1	PCP	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.1
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1
	TOT %	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1	.1
1<2	PCP	.0	.0	.0	.0	.1	*	.0	.0	.0	.0	.0	.1
	NO PCP	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.1
	TOT %	.0	.0	.0	.0	.2	*	.0	.0	.0	.0	.0	.2
2<5	PCP	*	.0	.0	.0	.2	.2	.1	.1	.0	.1	.7	
	NO PCP	.1	.1	.0	*	.2	.1	.0	.2	.0	.1	.7	
	TOT %	.2	.1	.0	*	.3	.3	.1	.3	.0	.1	1.4	
5<10	PCP	.2	*	.1	.3	.7	1.2	.1	.1	.0	.0	2.7	
	NO PCP	1.3	1.5	.8	1.9	4.1	3.7	1.5	.7	.0	1.3	16.7	
	TOT %	1.4	1.5	.9	2.1	4.8	4.9	1.6	.8	.0	1.3	19.4	
10+	PCP	.1	.1	.0	.2	.4	.7	.1	.1	.0	.1	1.7	
	NO PCP	5.5	3.8	2.6	4.7	16.7	25.7	9.8	3.3	.0	5.1	77.1	
	TOT %	5.5	3.9	2.6	4.9	17.1	26.3	9.9	3.4	.0	5.2	78.6	
TOT OBS													1688
TOT PCT		7.1	5.5	3.6	7.0	22.4	31.5	11.6	4.4	.0	6.6	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	*	*	.0	.0	.0	.0	.1	.0	.0	.1	
	4-10	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.1	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	*	*	.0	.0	.0	.0	.1	.0	.0	.2	
1/2<1	0-3	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1	.1	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1	.1	
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1	
	11-21	.0	.0	.0	.0	.1	*	.0	.0	.0	.0	.1	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.1	*	.0	.0	.0	.0	.2	
2<5	0-3	*	*	.0	.0	.1	.1	.0	.0	.0	.1	.4	
	4-10	*	.1	.1	*	.4	.4	.1	.3	.0	.1	1.3	
	11-21	.1	.0	.0	.0	.1	.1	.0	.1	.0	.0	.4	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.2	.1	.1	*	.5	.6	.1	.4	.0	.1	2.0	
5<10	0-3	.7	.3	.2	.5	1.0	.6	.3	.3	.0	1.4	5.2	
	4-10	.6	.8	.6	1.2	2.8	3.5	1.1	.6	.0	.0	11.3	
	11-21	.2	.2	.1	.1	.7	.9	.3	.1	.0	.0	2.5	
	22+	.0	.1	.0	.0	.0	.1	.0	.0	.0	.0	.1	
	TOT %	1.5	1.4	.8	1.9	4.5	5.0	1.7	1.0	.0	1.4	19.1	
10+	0-3	1.0	.8	.6	.9	2.1	4.1	1.8	.6	.0	5.5	17.3	
	4-10	3.4	2.5	1.6	3.4	12.5	17.8	7.9	3.0	.0	.0	52.1	
	11-21	.9	.5	.1	.2	1.8	4.0	1.4	.2	.0	.0	9.0	
	22+	*	.0	.0	.1	.0	.0	.0	*	.0	.0	.1	
	TOT %	5.3	3.9	2.3	4.4	16.4	25.8	11.1	3.8	.0	5.5	78.6	
TOT OBS													1979
TOT PCT		7.0	5.4	3.2	6.3	21.6	31.4	12.8	5.3	.0	7.0	100.0	

APRIL

PERIOD: (PRIMARY) 1932-1977
(OVER-ALL) 1879-1977AREA 0035 BUENAVENTURA SW
1.8N 80.7W

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NH >4/8) AND
OCCURRENCE OF NH <3/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY MGT	TOTAL OBS
00003	.9	.0	.9	2.9	14.0	5.4	2.6	1.4	.9	2.0	31.5	68.5	349
06009	.3	.0	1.3	9.2	16.7	11.8	3.0	.0	.7	2.6	45.6	54.4	305
12015	.3	.0	1.7	12.5	18.7	12.0	3.1	.8	.6	1.7	51.3	48.7	359
18021	.0	.0	1.4	4.2	13.9	10.5	3.3	.8	.6	.8	35.5	64.5	361
TOT	5	0	18	48	217	136	41	11	9	26	561	813	1374
PCT	.4	.0	1.3	7.1	15.8	9.9	3.0	.8	.7	1.9	40.8	59.2	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.2	.0	.2	1.2	14.9	83.4	495
06009	.0	.0	.0	1.5	25.4	75.1	540
12015	.4	.2	.2	2.7	19.5	77.0	487
18021	.0	.2	.2	2.2	18.5	79.0	547
TOT	3	2	3	39	407	1615	2069
PCT	.1	.1	.1	1.9	19.7	78.1	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR
CEILING HGT (FEET, NH >4/8) BY HOUR

HOUR (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ ANDS+	NH <5/8 AND 5+	TOTAL OBS
00003	.9	1.8	5.6	27.3	67.1	337
06009	.3	1.7	11.7	35.1	53.2	299
12015	.3	2.3	15.9	36.5	47.6	353
18021	.0	1.4	6.3	29.7	64.0	350
TOT	5	24	132	430	777	1339
PCT	.4	1.8	9.9	32.1	58.0	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
95/99	.0	.0	.1	.0	.0	.0	.0	.0	1	.1
90/94	.0	.0	.0	.0	.1	.0	.0	.0	2	.1
85/89	.0	.0	.0	.1	.8	1.9	.5	.1	51	3.4
80/84	.0	.0	.0	.1	1.1	13.2	17.8	3.3	539	35.5
75/79	.0	.0	.0	.0	.1	6.4	35.0	16.8	855	56.3
70/74	.0	.0	.0	.0	.0	.1	1.6	3.1	72	4.7
TOTAL	0	0	1	3	32	327	803	354	1520	100.0
PCT	.0	.0	.1	.2	2.1	21.5	52.8	23.3		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	C&LH
95/99	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0
90/94	.0	.0	.0	.0	.0	.1	.0	.0	.0	.1
85/89	.4	.4	.3	.1	.6	.6	.3	.2	.0	.5
80/84	3.9	3.1	1.6	1.8	6.3	8.7	5.1	2.3	.0	2.6
75/79	2.8	2.4	2.0	5.5	14.2	18.8	5.2	2.0	.0	3.4
70/74	.1	.1	.1	1.1	1.8	1.0	.1	*	.0	.4
TOTAL	7.2	6.0	4.0	8.4	22.8	29.2	10.8	4.6	.0	7.0

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	86	84	82	79	75	72	70	79.0	581
06009	86	82	81	78	74	72	69	78.0	649
12015	86	83	82	78	74	73	72	78.2	575
18021	97	89	86	81	76	73	71	81.0	714
TOT	97	87	84	79	75	72	69	79.1	2519

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-39	60-69	70-79	80-89	90-100	MEAN	TOTAL
								OBS
00003	.0	.0	1.0	19.5	64.1	15.4	84	395
06009	.0	.0	.5	11.2	56.4	31.9	87	401
12015	.0	.0	.0	11.1	53.3	35.7	87	398
18021	.0	1.0	7.0	44.2	37.4	10.4	79	412
TOT	0	4	35	348	845	374	84	1606

APRIL

PERIOD: (PRIMARY) 1932-1977
(OVER-ALL) 1879-1977

TABLE 17

AREA 0035 BUENAVENTURA SW
1.8N 80.7W

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	69 72	73 76	77 80	81 84	85 88	89 92	>92	TOT	W FOG	WD FOG
20/72	.0	.0	.0	.0	.0	.0	.1	1	.0	.1
17/19	.0	.0	.0	.0	.1	.0	.0	1	.0	.1
14/16	.0	.0	.1	.0	.0	.0	.1	2	.0	.1
11/13	.0	.0	.0	.0	.1	.1	.0	3	.0	.2
9/10	.0	.0	.0	.1	.1	.1	.0	5	.0	.3
7/8	.0	.1	.1	.5	.4	.1	.0	20	.0	1.2
6	.0	.0	.1	.4	.2	.1	.0	13	.0	.8
5	.0	.1	.5	.9	.3	.0	.0	29	.1	1.7
4	.0	.1	.6	1.3	.6	.0	.0	41	.0	2.5
3	.0	.1	1.1	1.4	.3	.0	.0	46	.1	2.8
2	.0	.6	1.4	2.5	.5	.0	.0	80	.0	5.0
1	.1	1.1	3.4	3.5	.4	.0	.0	136	.2	8.2
0	.2	1.7	6.8	4.9	.2	.0	.0	224	.4	13.5
-1	.2	2.4	10.6	3.5	.2	.0	.0	270	.4	16.4
-2	.2	2.4	13.5	2.7	.1	.0	.0	305	.4	18.5
-3	.2	1.7	7.8	1.6	.0	.0	.0	180	.2	11.0
-4	.0	1.9	4.7	.4	.0	.0	.0	112	.1	6.8
-5	.1	.9	3.5	.4	.0	.0	.0	78	.0	4.9
-6	.0	.5	1.1	.1	.0	.0	.0	27	.0	1.7
-7/-8	.0	.9	.9	.2	.0	.0	.0	32	.0	2.0
-9/-10	.0	.1	.0	.0	.0	.0	.0	2	.0	.1
-11/-13	.0	.0	.1	.0	.0	.0	.0	1	.0	.1
TOTAL	16		906	57	2			1608	32	1576
PCT	1.0	14.4	56.3	24.2	3.5	.4	.1	100.0	2.0	98.0

PERIOD: (OVER-ALL) 1963-1977

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	1.0	.7	.0	.0	.0	.0	1.7	.7	.0	.0	.0	.0	.0	.7
1-2	.2	2.8	.2	.0	.0	.0	3.2	2.4	.3	.0	.0	.0	.0	3.6
3-4	.0	1.4	1.1	.1	.0	.0	2.6	.0	.3	.0	.0	.0	.0	.9
5-6	.0	.2	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.2	.0	.0	.0	.0	.0	.3	.2	.0	.0	.0	.5
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.1
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.2	5.1	1.9	.1	.0	.0	7.9	.9	4.0	1.0	.0	.0	.0	5.9

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.5	.7	.0	.0	.0	.0	1.2	.4	.7	.1	.0	.0	.0	1.2
1-2	.1	1.4	.1	.0	.0	.0	1.7	.5	3.2	.3	.0	.0	.0	4.0
3-4	.0	.4	.1	.0	.0	.0	.5	.0	.8	.2	.0	.0	.0	1.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.6	2.5	.3	.0	.0	.0	3.4	.8	4.8	.6	.0	.0	.0	6.2

PERIOD: (OVER-ALL) 1963-1977

APRIL

AREA 0035 BUENAVENTURA SW
1.8N 80.7W

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	1.3	2.7	.0	.0	.0	.0	4.0	1.4	2.9	.0	.0	.0	.0	4.3
1-2	.8	10.0	1.0	.0	.0	.0	11.8	1.4	12.4	2.2	.0	.0	.0	16.0
3-4	.0	1.9	1.4	.0	.0	.0	3.3	.1	4.5	2.2	.0	.0	.0	6.9
5-6	.1	.4	.5	.0	.0	.0	1.0	.2	.5	.8	.1	.0	.0	1.6
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.6	.0	.0	.0	.6
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.3	.0	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	2.2	15.0	3.1	.0	.0	.0	20.3	3.1	20.3	5.9	.1	.0	.0	29.4

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	1.0	2.5	.3	.0	.0	.0	3.7	.6	1.6	.0	.0	.0	.0	2.2	
1-2	1.2	4.3	1.1	.0	.0	.0	6.6	.2	2.0	.2	.0	.0	.0	2.4	
3-4	.1	1.0	.5	.0	.0	.0	1.6	.0	.4	.1	.0	.0	.0	.5	
5-6	.0	.0	.2	.0	.0	.0	.2	.0	.*	.2	.0	.0	.0	.2	
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.1	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	2.3	7.8	2.1	.0	.0	.0	12.1	.8	4.0	.6	.0	.0	.0	5.4	90.7

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	16.0	12.5	.4	.0	.0	.0	28.9	
1-2	6.0	37.9	5.3	.0	.0	.0	49.2	
3-4	.5	10.6	5.7	.1	.0	.0	17.0	
5-6	.3	1.1	1.6	.1	.0	.0	3.1	
7	.0	.3	1.0	.0	.0	.0	1.2	
8-9	.0	.0	.1	.0	.0	.0	.1	
10-11	.0	.0	.1	.0	.0	.0	.1	
12	.0	.0	.3	.0	.0	.0	.3	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	22.8	62.4	14.5	.3	.0	.0	100.0	736

PERIOD: (OVER-ALL) 1949-1977

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<5	7.9	21.8	14.6	4.4	1.2	.3	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	585
6-7	.0	1.9	5.6	4.1	.9	.3	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	153
8-9	.0	.8	1.7	2.2	.3	.1	.3	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	63
10-11	.0	2.2	1.1	.7	.5	.2	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	55
12-13	.0	.0	.9	.9	.3	.0	.0	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	25
>13	.0	.0	.0	.1	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	5
INDET	12.3	6.4	3.1	1.4	.3	.1	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	273
TOTAL	234	383	313	158	42	11	9	6	2	1	0	0	0	0	0	0	0	0	0	0	1159
PCT	20.2	33.0	27.0	13.6	3.6	.9	.8	.5	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0

PERIOD: (PRIMARY) 1929-1977
(OVER-ALL) 1875-1977

MAY

AREA 0035 BUENAVENTURA SW
1.8N 80.8W

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							NO SIG WEA
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FGD W0 PCPN	FGD W0 PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	
N	8.5	5.6	11.3	.0	.0	.0	.0	25.4	4.2	.0	.0	.0	.0	.0	70.4
NE	10.2	.0	.0	.0	.0	.0	.0	10.2	1.7	.0	.0	.0	.0	.0	88.1
E	9.1	5.2	.0	.0	.0	.0	.0	14.3	9.1	.0	7.8	.0	.0	.0	68.8
SE	3.3	1.3	.0	.0	.0	.0	.0	4.6	2.0	2.0	3.6	.0	.3	.0	87.6
S	4.1	2.4	1.3	.0	.0	.0	.0	7.6	2.8	.9	3.7	.0	.7	.0	84.3
SW	3.1	2.3	1.2	.0	.0	.0	.0	6.6	3.0	1.8	.6	.0	.1	.0	88.1
W	2.7	2.5	.3	.0	.0	.0	.0	3.6	4.2	2.0	.0	.0	.0	.0	88.2
NW	6.6	.7	2.9	.0	.0	.0	.0	10.2	8.0	.7	.0	.0	.0	.0	81.0
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	3.6	.0	.0	.0	.0	.0	.0	3.6	7.1	7.1	.0	.0	.0	.0	82.1
TOT PCT	3.6	2.3	1.1	.0	.0	.0	.0	7.0	3.3	1.6	1.5	.0	.3	.0	86.5
TOT OBS:	1782														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							NO SIG WEA
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FGD W0 PCPN	FGD W0 PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	
0000Z	2.5	.9	.5	.0	.0	.0	.0	3.9	2.1	1.8	.5	.0	.7	.0	91.3
0600Z	4.2	3.1	1.3	.0	.0	.0	.0	8.6	4.6	4.4	2.0	.0	.2	.0	80.6
1200Z	4.9	2.7	1.6	.0	.0	.0	.0	9.2	4.3	.2	.9	.0	.4	.0	84.9
1800Z	2.7	2.5	1.1	.0	.0	.0	.0	6.1	2.3	.4	2.5	.0	.0	.0	88.6
TOT PCT	3.6	2.3	1.1	.0	.0	.0	.0	7.0	3.3	1.7	1.5	.0	.3	.0	86.3
TOT OBS:	1808														

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							48+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)						
	0-3	4-10	11-21	22-33	34-47		00					03	06	09	12	15	18	21
N	.4	.5	.2	.0	.0	.0		1.1	6.6	1.6	2.3	1.5	.3	1.0	.0	.7	1.0	
NE	.1	.5	.1	.0	.0	.0		.8	8.2	1.4	.4	.4	.9	.3	1.5	1.1	.1	
E	.2	.4	.1	.0	.0	.0		.8	6.1	.6	.0	1.4	.0	1.2	.0	.6	.3	
SE	.6	3.5	.4	.0	.0	.0		4.4	7.2	4.4	2.1	5.7	2.3	5.2	3.7	3.7	4.0	
S	1.1	16.9	7.7	.1	.0	.0		25.8	9.3	18.9	21.8	23.7	22.1	29.5	36.0	30.8	24.0	
SW	1.6	29.5	18.1	.3	.0	.0		49.5	10.0	49.2	49.6	44.7	49.1	50.1	48.2	51.5	56.6	
W	1.0	9.3	3.7	.0	.0	.0		14.0	8.7	19.0	19.3	17.6	18.1	10.4	9.2	9.2	12.9	
NW	.4	1.2	.2	.0	.0	.0		1.8	6.8	2.9	2.9	2.4	3.5	1.0	.0	1.2	.4	
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	1.8	.0	.0	.0	.0	.0		1.8	.0	2.1	1.4	2.5	3.7	1.3	1.5	1.2	.6	
TOT OBS	194	1698	836	14	0	0	2742		9.2	526	70	553	163	541	68	648	173	
TOT PCT	7.1	61.9	30.5	.5	.0	.0		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	

TABLE 3A

WIND DIR	0-6	WIND SPEED (KNOTS)				41+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)				
		7-16	17-27	28-40	00 03					06 09	12 15	18 21		
N	.7	.4	.*	.0	.0		1.1	6.6	1.7	1.3	.9	.7		
NE	.4	.3	.1	.0	.0		.8	8.2	1.3	.5	.5	.9		
E	.5	.3	.0	.0	.0		.8	6.1	.5	1.1	1.0	.5		
SE	1.9	2.5	.1	.0	.0		4.4	7.2	4.1	5.0	5.0	3.8		
S	7.1	17.3	1.4	.0	.0		25.8	9.3	19.2	23.3	20.2	29.4		
SW	10.2	36.5	2.1	.0	.0		49.5	10.0	49.2	45.7	49.9	52.6		
W	4.8	8.7	.5	.0	.0		14.0	8.7	19.0	17.7	10.3	10.0		
NW	1.1	.7	.1	.0	.0		1.8	6.8	2.9	2.7	.9	1.1		
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0		
CALM	1.8						1.8	.0	2.0	2.8	1.3	1.1		
TOT OBS	781	1828	133	0	0	2742		9.2	596	716	609	821		
TOT PCT	28.5	66.7	4.9	.0	.0		100.0		100.0	100.0	100.0	100.0		

PERIOD: (PRIMARY) 1929-1977
(OVER-ALL) 1875-1977

MAY

AREA 0035 BUENAVENTURA SW
1.8N 80.8W

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)				48+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47					
00603	2.0	5.7	59.7	32.0	.5	.0	.0	.0	9.3	100.0	596
06609	2.8	6.3	64.8	25.6	.6	.0	.0	.0	8.7	100.0	716
12615	1.3	4.4	61.6	31.9	.8	.0	.0	.0	9.4	100.0	609
18621	1.1	4.8	61.3	32.6	.2	.0	.0	.0	9.3	100.0	821
TOT	49	145	1698	836	14	0	0	0	9.2		2742
PCT	1.8	5.3	61.9	30.5	.5	.0	.0	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	.2	.0	.4	.7	6.4	
NE	.4	.2	.7	.1	5.6	
E	.1	.3	.3	.4	6.0	
SE	.5	.6	1.7	1.7	6.0	
S	2.2	2.6	10.7	9.8	6.2	
SW	3.9	6.5	20.3	17.8	6.1	
W	.8	1.9	6.8	4.9	6.2	
NW	.2	.4	.8	.6	5.6	
VAR	.0	.0	.0	.0	.0	
CALM	.4	.5	.4	.6	4.9	
TOT OBS	112	178	574	500	1364	6.1
TOT PCT	8.2	13.0	42.1	36.7	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8)
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH <5/8 ANY HGT	TOTAL OBS
N	.1	.0	.1	.2	.3	.3	.0	.0	.0	.0	.4	
NE	.0	.0	.0	.1	.1	.1	.0	.0	.0	.0	.7	
E	.0	.0	.1	.0	.3	.1	.0	.0	.0	.0	.5	
SE	.1	.0	.1	.5	.7	.9	.2	.0	.0	.1	1.8	
S	.1	.2	.8	3.4	6.6	2.8	1.4	.3	.1	.2	9.3	
SW	.1	.1	.9	6.7	12.6	4.6	2.3	.2	.3	.1	20.5	
W	.1	.0	.3	1.7	4.4	1.1	.4	.1	.1	.1	6.2	
NW	.0	.0	.0	.3	.3	.1	.1	.0	.0	.0	1.2	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.0	.0	.4	.3	.1	.1	.0	.0	.0	1.1	
TOT OBS	7	5	31	181	346	138	61	9	7	7	570	1364
TOT PCT	.5	.4	2.3	13.3	25.5	10.1	4.5	.7	.5	.5	41.8	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE
OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)							
	= OR >10	= OR >5	= OR >2	= OR >1	= OR >1/2	= OR >1/4	= OR >50YD	= OR >0
= OR >6500	1.1	1.2	1.2	1.2	1.2	1.2	1.2	1.2
= OR >5000	1.6	1.7	1.8	1.8	1.8	1.8	1.8	1.8
= OR >3500	5.3	6.2	6.2	6.2	6.2	6.2	6.2	6.2
= OR >2000	13.9	16.2	16.3	16.3	16.3	16.3	16.3	16.3
= OR >1000	36.8	41.1	41.7	41.7	41.7	41.7	41.7	41.7
= OR >600	47.4	53.9	54.8	54.8	54.8	54.8	54.8	54.9
= OR >300	49.1	56.1	57.1	57.1	57.1	57.1	57.1	57.2
= OR >150	49.2	56.4	57.4	57.4	57.4	57.4	57.4	57.5
= OR >0	49.4	56.7	57.9	57.9	57.9	57.9	57.9	58.0
TOTAL	681	782	798	799	799	799	799	800

TOTAL NUMBER OF OBS 1379

PCT FREQ NH <5/8 42.0

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8 OBSCD	TOTAL OBS
3.9	6.2	9.3	11.5	11.0	8.0	11.6	13.3	25.0	.2 1457

PERIOD: (PRIMARY) 1929-1977
(OVER-ALL) 1875-1977

MAY

AREA 0035 BUENAVENTURA SW
1.8N 80.8W

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1	
1/2<1	PCP	.0	.0	.0	.0	*	*	.0	.0	.0	.0	.1	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	*	*	.0	.0	.0	.0	.1	
1<2	PCP	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1	
	NO PCP	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1	
	TOT %	.0	.0	.0	.0	.1	.1	.0	.0	.0	.0	.2	
2<5	PCP	.1	.1	.0	.1	.2	.3	.1	.0	.0	.0	.7	
	NO PCP	.0	.0	.0	.0	.1	.2	*	.1	.0	.0	.3	
	TOT %	.1	.1	.0	.1	.3	.5	.1	.1	.0	.0	1.1	
5<10	PCP	.1	*	*	.1	1.1	1.4	.4	.1	.0	.0	3.3	
	NO PCP	.0	.1	.3	1.0	4.4	6.8	1.5	.2	.0	.1	14.3	
	TOT %	.1	.1	.3	1.1	5.5	8.3	1.9	.3	.0	.1	17.7	
10+	PCP	.1	.0	.1	.1	.5	1.3	.3	.1	.0	.1	2.4	
	NO PCP	.7	.6	.6	3.1	20.1	38.6	11.7	1.5	.0	1.5	78.6	
	TOT %	.8	.6	.7	3.2	20.6	39.9	12.0	1.6	.0	1.5	81.0	
TOT OBS													1767
TOT PCT		1.0	.8	1.0	4.3	26.5	48.8	14.0	1.9	.0	1.6	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	*	.0	.0	.0	.0	*	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	*	.0	.0	.0	.0	*	
1/2<1	0-3	.0	.0	.0	*	*	.0	.0	.0	.0	.0	*	
	4-10	.0	.0	.0	.0	*	*	.0	.0	.0	.0	*	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	*	*	*	.0	.0	.0	.0	.1	
1<2	0-3	.0	.0	.0	.0	.0	*	.0	.0	.0	.0	*	
	4-10	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.1	*	.0	.0	.0	.0	.1	
2<5	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1	
	4-10	.0	*	.0	.1	.2	.5	.2	.1	.0	.0	1.2	
	11-21	*	.0	.0	.0	*	.3	*	.0	.0	.0	.4	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	*	*	.0	.1	.3	.7	.3	.1	.0	.1	1.7	
5<10	0-3	.0	.0	.1	.2	.2	.2	.0	.0	.0	.1	1.0	
	4-10	.1	.1	*	.7	3.8	4.6	1.4	.3	.0	.0	11.0	
	11-21	.0	.0	.1	.1	1.0	3.3	.7	.0	.0	.0	5.2	
	22+	.0	*	.0	.0	.0	.1	.0	.0	.0	.0	.2	
	TOT %	.1	.1	.3	.9	5.1	8.2	2.2	.3	.0	.1	17.3	
10+	0-3	.4	.1	.1	.3	.6	1.4	.9	.4	.0	1.9	5.9	
	4-10	.4	.4	.5	2.4	12.3	22.5	8.0	1.0	.0	.0	47.5	
	11-21	.1	.1	.0	.1	6.5	16.6	3.4	.2	.0	.0	27.0	
	22+	.0	.0	.0	.0	*	.1	*	*	.0	.0	.2	
	TOT %	.9	.6	.6	2.8	19.4	40.6	12.2	1.6	.0	1.9	80.7	
TOT OBS													2024
TOT PCT		1.0	.8	.9	3.9	24.9	49.7	14.7	2.0	.0	2.1	100.0	

PERIOD: (PRIMARY) 1929-1977
(OVER-ALL) 1875-1977

MAY

AREA 0035 BUENAVENTURA SW
1.8N 80.8W

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET/NM >4/8) AND
OCCURRENCE OF NM <5/8 BY HOUR

HR	000	150	300	600	1000	2000	3500	5000	6500	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
(GMT)	149	299	599	999	1999	3499	4999	6499	7999				
00603	.3	.6	1.9	11.6	23.5	7.2	5.2	.3	.3	.6	51.4	48.6	362
06609	.9	.3	1.2	16.9	22.7	11.7	3.7	.3	.6	.9	59.2	40.8	326
12615	.8	.3	4.1	15.1	28.8	10.2	4.1	1.1	1.4	.3	66.2	33.8	364
18621	.0	.3	1.7	8.4	24.0	10.6	4.2	.8	.3	.3	50.4	49.6	359
TOT	7	5	32	182	350	139	61	9	9	7	801	610	1411
PCT	.5	.4	2.3	12.9	24.8	9.9	4.3	.6	.6	.5	56.8	43.2	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HR	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL
(GMT)							OBS
00603	.0	.0	.0	.4	13.9	85.7	476
06609	.2	.0	.0	2.2	22.5	75.1	550
12615	.0	.4	.6	3.1	16.6	79.3	488
18621	.0	.0	.0	.9	16.9	82.2	538
TOT	1	2	3	34	362	1650	2052
PCT	.1	.1	.1	1.7	17.6	80.4	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR
CEILING HGT (FEET/NM >4/8) BY HOUR

HR	<150	<600	<1000	1000+	NH <5/8 AND 5+	TOTAL
(GMT)	<50VD	<1	<5	AND 5+		OBS
00603	.3	2.8	15.0	38.0	47.0	353
06609	1.3	2.8	19.7	40.8	39.5	319
12615	.8	5.3	22.3	44.8	32.9	359
18621	.0	1.7	10.9	40.8	48.3	348
TOT	8	44	234	567	578	1379
PCT	.6	3.2	17.0	41.1	41.9	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL	PCT
									OBS	FREQ
90/94	.0	.0	.0	.1	.1	.0	.0	.0	2	.1
85/89	.0	.0	.1	.1	.4	1.0	.2	.1	31	1.9
80/84	.0	.0	.0	.1	1.0	11.6	12.8	1.7	442	27.2
75/79	.0	.0	.0	.1	.1	7.4	40.2	12.7	983	60.5
70/74	.0	.0	.0	.0	.2	.2	4.7	4.6	158	9.7
65/69	.0	.0	.0	.0	.0	.0	.1	.4	9	.6
TOTAL	0	0	1	4	29	329	945	317	1625	100.0
PCT	.0	.0	.1	.2	1.8	20.2	58.2	19.5		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
90/94	.0	.0	.0	.0	.0	*	.1	.0	.0	.0
85/89	.0	.1	.0	.1	.6	.8	.2	.1	.0	.1
80/84	.4	.4	.3	.9	6.5	12.7	4.4	.5	.0	1.0
75/79	.6	.4	.5	2.8	16.0	30.2	8.3	1.0	.0	.5
70/74	.1	.0	.1	1.7	4.4	2.8	.2	.1	.0	.2
65/69	.0	.0	.1	.3	.2	.1	.0	.0	.0	.0
TOTAL	1.1	.9	1.0	5.8	27.8	46.7	13.2	1.7	.0	1.7

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HR	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL
(GMT)									OBS
00603	86	84	82	78	73	71	67	78.1	601
06609	84	82	81	78	73	70	67	77.3	738
12615	88	84	81	78	72	70	67	77.4	611
18621	95	88	85	80	75	72	71	79.9	806
TOT	95	86	83	78	73	70	67	78.3	2756

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HR	0-29	30-39	60-69	70-79	80-89	90-100	MEAN	TOTAL
(GMT)								OBS
00603	.0	.0	.5	16.3	65.8	17.3	85	404
06609	.0	.0	.0	10.2	63.3	26.4	86	420
12615	.0	.5	1.0	11.5	61.1	26.0	86	419
18621	.0	.7	5.3	41.6	40.2	12.2	80	433
TOT	0	5	29	337	962	343	84	1676

PERIOD: (PRIMARY) 1929-1977
(OVER-ALL) 1875-1977

MAY

TABLE 17

AREA 0035 BUENAVENTURA SW
1.8N 80.8W

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	65 68	69 72	73 76	77 80	81 84	85 88	89 92	TOT	W FOG	NO FOG
14/16	.0	.0	.0	.0	.1	.0	.0	1	.0	.1
11/13	.0	.0	.0	.0	.1	.0	.0	1	.0	.1
9/10	.0	.0	.0	.1	.1	.0	.0	2	.0	.1
7/8	.0	.0	.1	.1	.3	.1	.1	12	.1	.7
6	.0	.0	.0	.1	.1	.2	.1	8	.1	.4
5	.0	.0	.1	.1	.4	.2	.1	15	.0	.9
4	.0	.0	.1	.4	.7	.7	.0	30	.0	1.8
3	.0	.0	.1	.2	1.4	.2	.0	31	.0	1.9
2	.0	.1	.3	.9	1.5	.2	.0	49	.0	2.0
1	.0	.0	.6	2.2	3.1	.2	.0	99	.2	5.9
0	.2	.4	1.2	5.0	3.8	.1	.0	173	.1	10.5
-1	.1	.6	2.3	8.9	2.8	.0	.0	238	.3	14.3
-2	.1	.6	3.2	13.3	1.5	.0	.0	304	.4	18.3
-3	.0	.2	3.1	11.1	.9	.0	.0	250	.2	13.2
-4	.0	.4	3.1	7.0	.6	.0	.0	179	.1	10.9
-5	.1	.4	2.5	3.5	.2	.0	.0	109	.1	6.6
-6	.0	.1	1.6	1.8	.1	.0	.0	58	.0	3.6
-7/-8	.0	.1	1.8	1.1	.1	.0	.0	52	.1	3.1
-9/-10	.0	.1	.5	.2	.0	.0	.0	12	.0	.7
-11/-13	.0	.0	.1	.0	.0	.0	.0	2	.0	.1
TOTAL	7	48	339	907	286	33	5	1625	27	1598
PCT	.4	3.0	20.9	59.8	17.6	2.0	.3	100.0	1.7	98.3

PERIOD: (OVER-ALL) 1963-1977

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
41	.1	.5	.0	.0	.0	.0	.6	.0	.1	.0	.0	.0	.0	.1
1-2	.2	.1	.0	.0	.0	.0	.3	.1	.6	.1	.0	.0	.0	.8
3-6	.0	.0	.2	.0	.0	.0	.2	.0	.4	.0	.0	.0	.0	.5
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.1
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.3	.6	.2	.0	.0	.0	1.2	.1	1.1	.2	.1	.0	.0	1.5

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
41	.0	.2	.0	.0	.0	.0	.2	.0	.5	.0	.0	.0	.0	.5
1-2	.0	.5	.0	.0	.0	.0	.5	.2	2.1	.1	.0	.0	.0	2.4
3-6	.0	.0	.1	.0	.0	.0	.1	.0	.8	.3	.0	.0	.0	1.1
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1
7	.0	.0	.1	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.7	.2	.0	.0	.0	.9	.2	3.6	.5	.0	.0	.0	4.2

PERIOD: (OVER-ALL) 1963-1977

MAY

AREA 0035 BUENAVENTURA SW
1.8N 80.8W

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	2.1	.1	.0	.0	.0	2.2	.4	1.3	.0	.0	.0	.0	1.7
1-2	.4	8.9	2.5	.0	.0	.0	11.8	.6	14.9	5.3	.0	.0	.0	20.9
3-4	.0	4.4	4.0	.0	.0	.0	8.3	.1	9.5	9.7	.0	.0	.0	19.3
5-6	.0	.3	1.5	.0	.0	.0	1.8	.1	1.1	5.0	.0	.0	.0	6.3
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.6	.1	.0	.0	.7
8-9	.0	.0	.1	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.1
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.4	15.7	8.3	.0	.0	.0	24.3	1.2	28.9	20.6	.2	.0	.0	48.9

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.3	1.1	.0	.0	.0	.0	1.4	.3	.3	.0	.0	.0	.0	.6	
1-2	.2	5.0	1.3	.0	.0	.0	6.6	.1	.7	.0	.0	.0	.0	.9	
3-4	.3	2.5	2.8	.0	.0	.0	5.7	.0	.3	.3	.0	.0	.0	.6	
5-6	.0	.0	.6	.0	.0	.0	.6	.0	.0	.2	.0	.0	.0	.2	
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.1	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.9	8.6	4.8	.1	.0	.0	14.3	.4	1.5	.5	.0	.0	.0	2.4	97.8

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	3.3	6.2	.1	.0	.0	.0	9.6	
1-2	2.2	32.8	9.4	.0	.0	.0	44.4	
3-4	.6	17.8	17.4	.0	.0	.0	35.7	
5-6	.1	1.5	7.3	.0	.0	.0	9.0	
7	.0	.0	.7	.1	.0	.0	.8	
8-9	.0	.0	.1	.0	.0	.0	.1	
10-11	.0	.0	.0	.3	.0	.0	.3	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.1	.0	.0	.0	.0	.1	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	6.2	58.4	35.0	.4	.0	.0	100.0	726

PERIOD: (OVER-ALL) 1949-1977

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	1.5	17.2	23.6	7.9	1.5	.3	.0	.0	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	608	3
6-7	.1	2.6	8.7	7.5	1.9	.2	.3	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	249	4
8-9	.0	1.0	1.4	2.0	1.1	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	70	5
10-11	.0	1.5	.7	.4	.2	.3	.2	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	38	4
12-13	.0	.0	1.0	.3	.6	.1	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	25	5
>13	.0	.0	.0	.1	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	4	7
INDEY	3.8	3.9	4.9	1.3	.3	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	172	2
TOTAL	62	304	470	231	71	18	5	1	2	0	0	0	0	0	0	0	0	0	0	1165	3
PCT	5.3	26.1	40.3	19.8	6.1	1.5	.4	.1	.2	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	

PERIOD: (PRIMARY) 1929-1977
(OVER-ALL) 1868-1977

JUNE

AREA 0035 BUENAVENTURA SW
1.8N 80.9W

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

PRECIPITATION TYPE										OTHER WEATHER PHENOMENA						
WNO DIR	RAIN	RAIN SHMR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	BLWG DUST	SPRAY BLWG SNOW	NO SIG WEA
N	21.3	.0	.0	.0	.0	.0	.0	21.3	.0	8.5	.0	.0	8.5	.0	.0	70.2
NE	13.3	.0	26.7	.0	.0	.0	.0	40.0	.0	13.3	.0	.0	.0	.0	.0	46.7
E	12.0	.0	.0	.0	.0	.0	.0	12.0	.0	16.0	.0	.0	.0	.0	.0	72.0
SE	1.1	4.4	7.7	.0	.0	.0	.0	13.2	1.1	.0	13.2	.0	.0	.0	.0	72.5
S	2.9	2.7	4.2	.0	.0	.0	.0	9.8	4.1	.4	5.0	.0	.2	.0	.0	80.5
SW	3.7	1.9	4.0	.0	.0	.0	.0	9.1	4.2	.8	1.2	.0	.1	.0	.0	84.6
W	7.7	7.3	2.4	.0	.0	.0	.0	17.4	9.3	1.3	.0	.0	1.0	.0	.0	72.4
NW	4.1	2.7	5.4	.0	.0	.0	.0	12.2	4.1	.0	.0	.0	.0	.0	.0	83.8
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	5.9	.0	.0	.0	.0	.0	.0	5.9	17.6	5.9	.0	.0	.0	.0	.0	70.6
TOT PCT	4.1	2.7	4.0	.0	.0	.0	.0	10.6	4.7	.9	2.4	.0	.3	.0	.0	81.3
TOT OBS:	1494															

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA									
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	BLWG BLWG	DUST DUST	SPRAY BLWG SNOW	NO SIG WEA
00603	2.7	2.2	5.2	.0	.0	.0	.0	9.9	4.9	.5	1.5	.0	.0	.0	.0	.0	83.3
06009	4.6	3.3	4.9	.0	.0	.0	.0	12.8	4.9	2.7	4.1	.0	.0	.0	.0	.0	76.0
12015	5.6	2.6	3.4	.0	.0	.0	.0	11.4	6.9	.0	1.6	.0	.3	.0	.0	.0	79.9
18021	4.2	2.8	2.5	.0	.0	.0	.0	8.9	2.2	.6	2.5	.0	.8	.0	.0	.0	85.3
TOT PCT	4.2	2.7	4.0	.0	.0	.0	.0	10.7	4.8	.9	2.4	.0	.3	.0	.0	.0	81.1
TOT OBS:	1511																

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)						
	0-3	4-10	11-21	22-33	34-47	48+	00				03	06	09	12	15	18	21
N	.3	.3	.2	.0	.0	.0	.8	7.0	.7	1.4	.7	3.1	.4	2.5	.2	1.3	
NE	.1	.3	.0	.0	.0	.0	.5	5.6	.0	.0	1.2	.1	.3	.4	.6	.0	
E	.1	.1	.1	.0	.0	.0	.3	8.2	.0	.0	.2	.0	.7	.0	.5	.0	
SE	.2	2.2	.4	.0	.0	.0	2.8	7.5	2.7	7.8	2.9	6.1	2.1	3.5	1.9	2.0	
S	1.0	16.4	11.2	.1	.0	.0	28.6	9.9	22.5	35.5	24.0	24.6	30.4	52.1	35.3	24.7	
SW	1.1	28.0	23.8	.3	.0	.0	53.3	10.7	54.9	43.9	56.1	50.0	56.4	34.5	52.2	56.3	
W	.4	7.6	2.9	.1	.0	.0	11.0	9.2	15.0	9.8	12.8	11.9	8.2	5.3	7.7	14.2	
NW	.1	1.2	.2	.0	.0	.0	1.5	8.1	2.5	1.7	2.2	1.2	.5	1.8	.8	1.6	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	1.2						1.2	.0	1.6	.0	1.9	3.0	.9	.0	.8	.0	
TOT OBS	111	171	949	12	0	0	2443		499	74	482	168	458	71	531	160	
TOT PCT	4.5	56.1	38.8	.5	.0	.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)					TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)			
	0-6	7-16	17-27	28-40	41+				00	06	12	18
N	.5	.3	.0	.0	.0	.8	7.0	.8	1.3	.7	.4	
NE	.2	.2	.0	.0	.0	.5	5.6	.0	1.0	.3	.4	
E	.1	.2	.0	.0	.0	.3	8.2	.0	.2	.6	.4	
SE	1.3	1.4	.1	.0	.0	2.8	7.5	3.4	3.7	2.3	2.0	
S	7.0	19.8	1.8	.0	.0	28.6	9.9	24.2	24.2	33.3	32.9	
SW	8.2	41.2	3.9	.0	.0	53.3	10.7	53.5	53.1	53.4	53.1	
W	2.8	7.9	.4	.0	.0	11.0	9.2	14.4	12.5	7.8	9.2	
NW	.6	.9	.1	.0	.0	1.5	8.1	2.4	1.9	.7	1.0	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	1.2					1.2	.0	1.4	2.2	.8	.6	
TOT OBS	534	1757	151	1	0	2443		573	650	529	691	
TOT PCT	21.9	71.9	6.2	.0	.0		100.0	100.0	100.0	100.0	100.0	

PERIOD: (PRIMARY) 1929-1977
(OVER-ALL) 1868-1977

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AREA 0035 BUENAVENTURA SW
1.8N 80.9W

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)				48+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47					
00003	1.4	2.8	52.4	42.8	.7	.0	.0	.0	10.3	100.0	573
06009	2.2	4.3	58.3	34.9	.3	.0	.0	.0	9.6	100.0	650
12015	.8	3.6	55.0	40.3	.4	.0	.0	.0	10.1	100.0	529
18021	.6	2.6	58.0	38.2	.6	.0	.0	.0	10.0	100.0	691
TOT	30	81	1371	949	12	0	0	0	10.0		2443
PCT	1.2	3.3	56.1	38.8	.5	.0	.0	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	.1	.0	.1	.2		6.1
NE	.1	.1	.2	.3		6.0
E	.1	.1	.2	.1		5.2
SE	.1	.3	.7	1.4		6.7
S	.5	2.5	9.1	14.4		6.8
SW	1.7	1.1	21.7	26.0		6.7
W	.5	1.5	4.1	5.4		6.5
NW	.4	.2	.6	.5		6.3
VAR	.0	.0	.0	.0		.0
CALM	.3	.2	.2	.6		5.7
TOT OBS	37	122	408	543	1110	6.7
TOT PCT	3.3	11.0	36.8	48.9	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8)
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

	000	150	300	600	1000	2000	3500	5000	6500	8000+	NH <5/8 ANY HGT	TOTAL OBS
	149	299	599	999	1999	3499	4999	6499	7999			
N	.0	.0	.0	.1	.0	.1	.0	.0	.0	.0	.2	
NE	.0	.0	.0	.0	.2	.0	.0	.1	.0	.0	.4	
E	.0	.0	.0	.1	.1	.0	.0	.0	.0	.0	.3	
SE	.0	.0	.0	.4	.8	.2	.1	.0	.0	.0	.9	
S	.5	.3	1.1	4.4	7.7	3.2	1.3	.4	.0	.1	7.3	
SW	.2	.1	1.6	10.2	16.4	7.1	1.6	.9	.0	.1	17.6	
W	.2	.1	1.2	1.6	3.2	1.0	.2	.1	.0	.1	5.0	
NW	.0	.0	.2	.4	.2	.0	.0	.0	.0	.0	.4	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.0	.0	.1	.5	.1	.0	.0	.0	.0	.5	
TOT OBS	10	5	34	189	325	132	35	16	0	2	362	1110
TOT PCT	.9	.5	3.1	17.0	29.3	11.9	3.2	1.4	.0	.2	32.6	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE
OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)							
	= OR >10	= OR >5	= OR >2	= OR >1	= OR >1/2	= OR >1/4	= OR >50YD	= OR >0
= OR >6500	.2	.2	.2	.2	.2	.2	.2	.2
= OR >5000	1.2	1.6	1.6	1.6	1.6	1.6	1.6	1.6
= OR >3500	3.7	4.6	4.7	4.7	4.7	4.7	4.7	4.7
= OR >2000	14.3	16.5	16.7	16.7	16.7	16.7	16.7	16.7
= OR >1000	39.6	45.2	45.9	45.9	45.9	45.9	46.0	46.0
= OR >600	52.8	61.6	62.7	62.7	62.8	62.8	62.9	62.9
= OR >300	54.5	64.5	65.7	65.7	65.8	65.8	65.9	65.9
= OR >150	54.8	64.8	66.2	66.2	66.3	66.3	66.3	66.3
= OR >0	55.1	65.4	66.9	67.1	67.1	67.1	67.2	67.2
TOTAL	619	735	751	753	754	754	755	755

TOTAL NUMBER OF OBSI 1123

PCT FREQ NH <5/8 32.8

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

	0	1	2	3	4	5	6	7	8	OBSCD	TOTAL OBS
	1.7	3.9	6.5	9.6	11.3	8.7	11.7	11.0	35.3	.4	1214

PERIOD: (PRIMARY) 1929-1977
(OVER-ALL) 1868-1977

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AREA 0035 BUENAVENTURA SW
1.8N 80.9W

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.1	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.1	
1/2<1	PCP	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1	
	NO PCP	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1	
	TOT %	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.2	
1<2	PCP	.0	.0	.0	.0	.1	.2	.0	.0	.0	.0	.3	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.1	.2	.0	.0	.0	.0	.3	
2<5	PCP	.1	.1	.0	.0	.2	.6	.6	*	.0	.0	1.5	
	NO PCP	.0	.0	.0	.0	.3	.2	.0	.0	.0	.0	.5	
	TOT %	.1	.1	.0	.0	.4	.8	.6	*	.0	.0	1.9	
5<10	PCP	.1	.1	.0	.3	1.3	2.1	.4	.1	.0	.0	4.5	
	NO PCP	.0	.0	.1	.9	6.2	5.7	1.4	.2	.0	.3	14.6	
	TOT %	.1	.1	.1	1.2	7.5	7.8	1.8	.3	.0	.3	19.1	
10+	PCP	.0	.0	.1	.1	1.0	1.6	.7	.0	.0	.1	3.6	
	NO PCP	.3	.3	.3	1.8	18.9	44.0	7.5	1.0	.0	.8	74.8	
	TOT %	.3	.3	.4	2.0	19.9	45.6	8.2	1.0	.0	.9	78.4	
TOT OBS													1448
TOT PCT													

JUNE

PERIOD: (PRIMARY) 1929-1977
(OVER-ALL) 1868-1977

TABLE 10

AREA 0035 BUENAVENTURA SW
1.8N 80.9WPERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NH >4/8) AND
OCCURRENCE OF NH <5/8 BY HOUR

HR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY MGT	TOTAL OBS
00003	.0	.3	2.2	15.4	30.2	12.6	2.5	.9	.0	.3	64.5	35.5	318
06009	1.1	.4	3.1	19.2	25.7	11.5	1.9	1.5	.0	.4	64.8	35.2	261
12015	1.6	.7	3.6	19.2	30.6	11.7	4.2	1.6	.0	.0	79.3	26.7	307
18021	.7	.4	3.0	11.5	26.8	10.8	3.3	1.5	.0	.0	58.0	42.0	269
TOT	10	5	34	189	329	135	35	16	0	2	755	400	1155
PCT	.9	.4	2.9	16.4	28.5	11.7	3.0	1.4	.0	.2	63.4	34.6	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NH) BY HOUR

HR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.0	.0	.2	2.6	17.2	80.0	425
06009	.0	.0	.4	2.6	26.0	71.0	462
12015	.2	.5	.7	2.9	16.6	79.1	421
18021	.0	.7	.0	1.6	16.8	80.9	434
TOT	1	5	6	42	336	1352	1742
PCT	.1	.3	.3	2.4	19.3	77.6	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NH) AND/OR
CEILING HGT (FEET, NH >4/8), BY HOUR

HR (GMT)	<150 <500	<600 <1	<1000 <5	1000+ AND 5+	NH <5/8 AND 5+	TOTAL OBS
00003	.0	2.6	19.5	47.6	32.9	307
06009	1.2	4.8	25.1	42.6	32.3	251
12015	1.7	6.6	26.8	47.7	25.5	302
18021	.8	4.2	17.1	42.2	40.7	263
TOT	10	51	249	508	366	1123
PCT	.9	4.5	22.2	45.2	32.6	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
90/94	.0	.0	.0	.1	.1	.1	.0	.0	3	.2
85/89	.0	.0	.0	.0	.2	.6	.1	.0	11	.8
80/84	.0	.0	.0	.1	.4	5.9	11.3	1.7	255	19.3
75/79	.0	.0	.0	.0	.2	9.7	40.9	15.3	870	66.0
70/74	.0	.0	.0	.0	.0	1.1	6.8	4.7	165	12.5
65/69	.0	.0	.0	.0	.0	.0	.5	.6	14	1.1
TOTAL	0	0	2	10	229	784	293	1318	100.0	
PCT	.0	.0	.0	.2	.8	17.4	59.5	22.2		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
90/94	.0	.0	.1	.0	.0	.1	.1	.0	.0	.0
85/89	.0	.0	.1	.0	.5	.2	.0	.0	.0	.0
80/84	.0	.2	.2	.1	5.4	9.8	2.8	.4	.0	.4
75/79	.2	.3	.1	1.7	18.4	37.1	6.7	.8	.0	.7
70/74	.0	.0	.0	1.3	5.8	4.9	.5	.1	.0	.0
65/69	.0	.0	.0	.2	.6	.3	.0	.0	.0	.0
TOTAL	.4	.5	.4	3.3	30.7	52.4	10.1	1.2	.0	1.1

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	86	82	81	78	73	70	67	77.4	370
06009	89	82	80	77	73	70	68	76.6	648
12015	89	82	81	77	73	69	65	76.8	532
18021	94	87	84	79	74	72	69	79.1	664
TOT	94	85	82	77	73	70	69	77.5	2414

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HR (GMT)	0-29	30-39	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	.0	.3	14.1	66.4	19.3	85	327
06009	.0	.0	.0	11.2	59.6	29.2	86	336
12015	.0	.0	.0	12.8	58.3	28.9	86	343
18021	.0	.6	2.9	33.4	52.6	10.4	81	308
TOT	0	2	10	233	791	298	85	1334

PERIOD: (PRIMARY) 1929-1977
(OVER-ALL) 1868-1977

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TABLE 17

AREA 0035 BUENAVENTURA SW
1.8N 80.9W

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	61 64	65 68	69 72	73 76	77 80	81 84	85 88	89 92	>92	TOT	W FOG	WD FOG
11/13	.0	.0	.0	.0	.0	.0	.1	.0	.0	1	.0	.1
9/10	.0	.0	.0	.1	.1	.1	.0	.0	.1	6	.0	.4
7/8	.0	.0	.1	.0	.1	.1	.1	.0	.0	6	.0	.4
6	.0	.0	.0	.1	.1	.0	.1	.0	.0	3	.0	.2
5	.0	.0	.0	.1	.3	.2	.1	.1	.0	12	.0	.9
4	.0	.0	.0	.1	.4	.7	.2	.1	.0	20	.0	1.4
3	.0	.0	.0	.1	.4	.6	.2	.1	.0	21	.0	1.5
2	.0	.0	.0	.4	1.3	1.8	.1	.1	.0	51	.1	3.5
1	.0	.0	.1	1.3	1.5	1.7	.2	.0	.0	68	.1	4.8
0	.0	.0	.1	.9	5.5	2.6	.1	.0	.0	130	.1	9.1
-1	.0	.1	.0	2.0	8.5	2.1	.0	.0	.0	178	.5	12.1
-2	.0	.0	.7	3.8	13.4	1.1	.0	.0	.0	268	.9	18.1
-3	.0	.1	.4	6.2	11.1	.8	.0	.0	.0	261	.4	18.1
-4	.0	.0	.4	6.1	5.0	.5	.0	.0	.0	169	.2	11.8
-5	.0	.1	.8	4.2	3.2	.1	.0	.0	.0	117	.0	8.3
-6	.0	.0	.1	2.4	.9	.0	.0	.0	.0	48	.1	3.3
-7/-8	.0	.1	.3	1.5	.6	.0	.0	.0	.0	36	.0	2.6
-9/-10	.1	.0	.3	.5	.1	.0	.0	.0	.0	14	.0	1.0
-11/-13	.0	.0	.1	.0	.0	.0	.0	.0	.0	1	.0	.1
TOTAL	1	5	48	420	174	19	4	1	1410	33	1377	
PCT	.1	.4	3.4	29.8	52.3	12.3	1.3	.3	.1	100.0	2.3	97.7

PERIOD: (OVER-ALL) 1963-1977

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	N								NE							
	1-3	4-10	11-21	22-33	34-47	48+	PCT		1-3	4-10	11-21	22-33	34-47	48+	PCT	
<1	.0	.0	.0	.0	.0	.0	.0		.2	.0	.0	.0	.0	.0	.0	.2
1-2	.0	.0	.0	.0	.0	.0	.0		.0	.2	.0	.0	.0	.0	.0	.2
3-4	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.2	.0	.0	.0	.2		.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.0	.2	.0	.0	.0	.2		.2	.2	.0	.0	.0	.0	.0	.4

HGT	E								SE							
	1-3	4-10	11-21	22-33	34-47	48+	PCT		1-3	4-10	11-21	22-33	34-47	48+	PCT	
<1	.0	.0	.0	.0	.0	.0	.0		.0	.3	.0	.0	.0	.0	.0	.3
1-2	.0	.2	.0	.0	.0	.0	.2		.0	1.7	.2	.0	.0	.0	.0	1.9
3-4	.0	.0	.0	.0	.0	.0	.0		.0	1.1	.8	.0	.0	.0	.0	1.1
5-6	.0	.2	.2	.0	.0	.0	.4		.0	.1	.0	.0	.0	.0	.0	.1
7	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.4	.2	.0	.0	.0	.6		.0	3.1	.3	.0	.0	.0	.0	3.4

PERIOD: (OVER-ALL) 1963-1977

JUNE

AREA 0035 BUENAVENTURA SW
1.8N 80.9W

TABLE 16 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.6	1.7	.0	.0	.0	.0	2.3	.4	1.7	.0	.0	.0	.0	2.1
1-2	.2	5.2	3.4	.0	.0	.0	8.8	.2	13.3	3.6	.0	.0	.0	17.1
3-4	.0	4.7	3.4	.0	.0	.0	8.1	.2	11.2	14.9	.0	.0	.0	26.3
5-6	.0	.6	2.8	.0	.0	.0	3.4	.2	.5	7.8	.2	.0	.0	8.7
7	.0	.0	.9	.0	.0	.0	.9	.0	.2	2.2	.0	.0	.0	2.4
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.4
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.8	12.2	10.4	.0	.0	.0	23.4	1.0	26.8	26.7	.4	.0	.0	56.9

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.2	.9	.7	.0	.0	.0	1.3	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	4.7	.7	.0	.0	.0	5.4	.0	.0	.0	.0	.0	.0	.0	.0
3-4	.0	2.9	2.4	.0	.0	.0	5.2	.0	.6	.2	.0	.0	.0	.9	.9
5-6	.0	.0	.9	.0	.0	.0	.9	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.2	8.5	4.1	.0	.0	.0	12.8	.0	.7	.3	.0	.0	.0	1.0	98.7

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	2.8	4.7	.2	.0	.0	.0	7.8	
1-2	.6	25.7	7.8	.0	.0	.0	34.0	
3-4	.4	20.2	20.6	.0	.0	.0	41.2	
5-6	.2	1.3	11.7	.2	.0	.0	13.4	
7	.0	.2	3.0	.0	.0	.0	3.2	
8-9	.0	.0	.2	.2	.0	.0	.4	
10-11	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	4.0	52.2	43.5	.4	.0	.0	100.0	529

PERIOD: (OVER-ALL) 1949-1977

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	2.7	13.9	25.2	7.5	2.4	.3	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	515	3
6-7	.0	2.9	9.8	9.6	2.6	.8	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	259	4
8-9	.0	.1	1.5	3.3	1.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	61	5
10-11	.0	.5	.4	.7	.5	.2	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	24	5
12-13	.0	.0	.7	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	10	4
>13	.0	.0	.0	.3	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	4	6
INDET	1.1	2.2	4.1	2.6	.7	.6	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	114	4
TOTAL	38	194	412	240	75	20	7	0	0	1	0	0	0	0	0	0	0	0	0	987	4
PCT	3.9	19.7	41.7	24.3	7.6	2.0	.7	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	

PERIOD: (PRIMARY) 1924-1977
(OVER-ALL) 1862-1977

JULY

AREA 0085 BUENAVENTURA SW
1.7N 80.7W

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

PRECIPITATION TYPE										OTHER WEATHER PHENOMENA					
WIND DIR	RAIN	RAIN SHWR	DRZL	FRIG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
N	11.1	10.7	8.3	.0	.0	.0	.0	36.1	8.3	11.1	.0	.0	.0	.0	55.6
NE	.0	11.1	7.4	.0	.0	.0	.0	18.5	3.7	.0	.0	.0	.0	.0	77.8
E	7.7	5.8	11.5	.0	.0	.0	.0	25.0	5.8	.0	.0	.0	7.7	.0	61.5
SE	7.0	3.1	1.6	.0	.0	.0	.0	10.9	1.6	.0	2.1	.0	.0	.0	84.5
S	3.8	4.4	3.5	.0	.0	.0	.0	11.3	3.9	1.3	1.7	.0	.5	.0	81.7
SW	3.5	3.4	3.2	.0	.0	.0	.0	9.7	4.6	.6	1.1	.0	.3	.1	83.7
W	7.8	3.2	6.4	.0	.0	.0	.0	17.4	6.8	1.1	.0	.0	.0	.0	75.6
NW	7.5	1.9	5.7	.0	.0	.0	.0	15.1	.0	11.3	.0	.0	.0	.0	73.6
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	7.7	19.4	.0	.0	.0	.0	.0	23.1	.0	7.7	.0	.0	.0	.0	76.9
TOT PCT	4.1	3.9	3.6	.0	.0	.0	.0	11.3	4.5	1.0	1.2	.0	.4	.1	81.9
TOT OBS:	1545														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST BLWG SNOW	NO SIG WEA
00003	4.1	3.6	3.6	.0	.0	.0	.0	11.0	3.3	.5	.8	.0	.5	.3	83.9
06009	4.4	5.4	5.4	.0	.0	.0	.0	14.9	3.1	3.1	1.3	.0	.0	.0	78.7
12015	4.7	3.1	3.4	.0	.0	.0	.0	10.7	5.8	.5	1.0	.0	.5	.0	81.4
18021	3.7	3.5	2.5	.0	.0	.0	.0	9.5	5.7	.2	1.7	.0	.5	.0	82.6
TOT PCT TOT OBS:	4.2 1565	3.9	3.7	.0	.0	.0	.0	11.5	4.5	1.1	1.2	.0	.4	.1	81.7

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	48+					00	03	06	09	12	15	18	21
N	.1	.4	*	.0	.0	.0		.5	5.3		.7	.0	1.1	.7	.3	.0	.3	.0
NE	.1	.1	.1	.0	.0	.0		.2	7.4		.6	.0	.2	.0	.7	.0	.2	.0
E	.1	.3	.2	.0	.0	.0		.5	10.1		.8	.0	.0	.0	1.4	.0	.5	.5
SE	.2	1.2	.2	.0	.0	.0		1.6	7.4		1.0	.9	1.5	1.4	3.1	.6	1.6	.9
S	1.2	15.5	11.5	.2	.0	.0		98.5	10.2		23.2	32.9	25.1	24.7	31.7	39.2	32.6	28.7
SW	1.1	30.2	25.7	.3	.0	.0		57.3	10.6		58.3	59.1	57.8	59.6	55.0	53.5	56.8	58.7
W	.6	5.9	2.6	*	.0	.0		9.1	9.1		12.9	4.7	10.7	12.1	6.1	5.5	6.7	10.1
NW	.2	.8	*	.0	.0	.0		1.1	6.3		1.3	.0	1.6	.7	1.0	1.2	.7	1.1
VAR	.0	.0	.0	.0	.0	.0		.0	.0		.0	.0	.0	.0	.0	.0	.0	.0
CALM	1.0							1.0	.0		1.2	2.4	2.0	.9	.8	.0	.5	.0
TOT OBS	123	1491	1107	15	0	0		2736	10.1		510	85	548	221	481	86	609	196
TOT PCT	4.5	54.5	40.5	.5	.0	.0			100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)				TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)			
	0-6	7-16	17-27	28-40				00	06	12	18
N	.5	.1	.0	.0	.0	.5	5.3	.6	1.0	.2	.2
NE	.2	.1	.0	.0	.0	.3	7.4	.5	.1	.6	.2
E	.2	.3	.1	.0	.0	.5	10.1	.7	.0	1.1	.5
SE	.7	.8	*	.0	.0	1.6	7.4	1.0	1.5	2.7	1.4
S	5.8	20.4	2.3	.0	.0	28.5	10.2	24.6	25.0	32.8	31.7
SW	8.7	44.4	4.2	.0	.0	57.3	10.6	58.4	58.3	54.8	57.3
W	2.8	5.9	.4	.0	.0	9.1	9.1	11.7	11.1	6.0	7.5
NW	.6	.4	.0	.0	.0	1.1	6.3	1.1	1.4	1.0	.8
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	1.0					1.0	.0	1.3	1.7	.7	.4
TOT OBS	562	1983	191	0	0	2736	10.1	595	769	567	805
TOT PCT	20.5	72.5	7.0	.0	.0		100.0	100.0	100.0	100.0	100.0

PERIOD: (PRIMARY) 1924-1977
(OVER-ALL) 1862-1977

JULY

AREA 0035 BUENAVENTURA SW
1.7N 80.7W

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)			48+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47				
00003	1.3	3.2	51.1	44.2	.2	.0	.0	10.4	100.0	595
06009	1.7	3.9	55.8	38.2	.4	.0	.0	9.8	100.0	769
12015	.7	4.6	52.0	42.3	.4	.0	.0	10.2	100.0	567
18021	.4	2.5	57.5	38.5	1.1	.0	.0	10.3	100.0	805
TOT	28	95	1491	1107	15	0	0	10.1		2736
PCT	1.0	3.5	54.5	40.5	.5	.0	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & NBSCD	TOTAL OBS	MEAN CLOUD COVER
N	.0	.1	.2	.4		6.8
NE	.1	.0	.2	.2		5.8
E	.1	.2	.5	.2		5.6
SE	.2	.0	.4	1.0		6.7
S	1.0	1.3	9.5	14.2		6.8
SW	1.2	4.5	24.1	30.8		6.9
W	.3	1.0	3.8	3.2		6.4
NW	.*	.1	.4	.2		6.4
VAR	.0	.0	.0	.0		.0
CALM	.0	.0	.2	.4		7.5
TOT OBS	34	83	452	581	1150	6.8
TOT PCT	3.0	7.2	39.3	50.5	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8)
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

000	150	300	600	1000	2000	3500	5000	6500	8000+	NH <5/8	TOTAL
149	299	599	999	1999	3499	4999	6499	7999		ANY HGT	OBS
.1	.0	.1	.0	.0	.1	.0	.0	.0	.0	.3	
.0	.0	.*	.1	.1	.1	.0	.0	.0	.0	.2	
.0	.0	.1	.0	.1	.2	.0	.1	.0	.0	.5	
.1	.0	.1	.1	.3	.4	.1	.1	.0	.*	.5	
.2	.1	1.0	4.7	8.3	3.9	1.2	.3	.3	.1	6.0	
.2	.3	2.4	12.1	19.7	7.3	1.9	.5	.0	.2	16.0	
.0	.1	.3	1.8	1.7	.5	.2	.0	.0	.0	3.8	
.0	.0	.0	.0	.4	.0	.*	.0	.0	.0	.3	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
.0	.1	.0	.2	.2	.0	.1	.1	.0	.0	.0	
.6	7	47	217	352	143	40	13	3	4	318	1150
.5	.6	4.1	18.9	30.6	12.4	3.5	1.1	.3	.3	27.7	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE
OF CEILING HEIGHT (NH >4/8) AND VSBY (NH)

CEILING (FEET)	= OR			VSBY (NM)			= OR		
	>10	>5	>2	>1	>1/2	>1/4	>50YD	>0	>0
= OR >6500	.4	.6	.6	.6	.6	.6	.6	.6	.6
= OR >5000	1.2	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
= OR >3500	4.0	5.1	5.2	5.2	5.2	5.2	5.2	5.2	5.2
= OR >2000	14.9	17.4	17.7	17.7	17.7	17.7	17.7	17.7	17.7
= OR >1000	40.8	47.4	48.1	48.2	48.2	48.2	48.2	48.2	48.2
= OR >600	55.7	65.6	66.9	67.0	67.0	67.0	67.0	67.0	67.0
= OR >300	57.8	69.2	70.9	71.0	71.1	71.1	71.1	71.1	71.1
= OR >150	57.9	69.7	71.5	71.6	71.7	71.7	71.7	71.7	71.7
= OR >0	58.0	69.9	71.9	72.1	72.2	72.2	72.2	72.2	72.2
TOTAL	668	805	828	830	831	831	831	831	831

TOTAL NUMBER OF OBS: 1151

PCT FREQ NH <5/8: 27.8

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	OBSCD	TOTAL OBS
1.3	2.2	5.9	8.9	9.4	9.1	13.2	14.1	35.8	.2	1247

PERIOD: (PRIMARY) 1924-1977
(OVER-ALL) 1862-1977

JULY

AREA 0035 BUENAVENTURA SW
1.7N 80.7W

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1/2<1	PCP	*	*	.0	.0	*	*	.0	.0	.0	.0	.1	.1
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1
	TOT %	*	*	.0	.0	*	*	.0	.0	.0	.0	.1	.2
1<2	PCP	.0	.0	.0	.1	.0	.1	.0	.0	.0	.0	.1	.1
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.1	.0	.1	.0	.0	.0	.0	.1	.1
2<5	PCP	.1	*	.1	.1	.3	.6	.3	.0	.0	.0	1.4	.6
	NO PCP	.0	.0	.0	.0	.1	.3	.2	.0	.0	.0	.0	.6
	TOT %	.1	*	.1	.1	.4	.9	.5	.0	.0	.0	2.0	2.0
5<10	PCP	.1	*	.1	*	2.0	3.0	.9	.1	.0	.1	6.4	6.4
	NO PCP	.1	.1	.1	.6	6.6	10.0	.7	.2	.0	.1	18.6	18.6
	TOT %	.1	.1	.2	.6	8.6	13.0	1.6	.3	.0	.3	25.0	25.0
10+	PCP	.0	.0	.0	.1	.7	1.9	.3	*	.0	.0	3.0	3.0
	NO PCP	.3	.3	.5	1.3	18.2	41.9	6.1	.5	.0	.5	69.6	69.6
	TOT %	.3	.3	.5	1.3	18.9	43.8	6.5	.6	.0	.5	72.7	72.7
TOT OBS		1541											
TOT PCT		.6	.4	.8	2.1	28.0	57.9	8.6	.9	.0	.8	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.0	.1	*	.0	.0	.0	.1	.1
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.1	*	.0	.0	.0	.1	.1
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1	.1
	4-10	*	*	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1
	11-21	.0	.0	.0	.0	.1	.1	.0	.0	.0	.0	.1	.1
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	*	*	.0	.0	.1	.1	.0	.0	.0	.1	.2	.2
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1	.1
	4-10	.0	.0	.0	.0	.0	.1	.1	.0	.0	.0	.1	.1
	11-21	.0	.0	.0	.1	*	*	.0	.0	.0	.0	.1	.1
	22+	.0	.0	.0	.0	*	*	.0	.0	.0	.0	.1	.1
	TOT %	.0	.0	.0	.1	.1	.1	.1	.0	.0	.1	.3	.3
2<5	0-3	.0	.0	.0	.0	*	.1	.0	.0	.0	.0	.1	.1
	4-10	.1	*	*	.1	.2	.6	.4	.1	.0	.0	1.4	.6
	11-21	.0	.0	.1	.0	.2	.4	.2	.0	.0	.0	.8	.8
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.1	*	.1	.1	.4	1.0	.6	.1	.0	.0	2.3	2.3
5<10	0-3	.0	*	*	.1	.3	.2	.2	.1	.0	.2	1.1	1.1
	4-10	.1	.0	.1	.4	4.2	7.3	1.3	.2	.0	.0	13.7	13.7
	11-21	*	.1	.1	.1	3.2	5.4	.3	*	.0	.0	9.2	9.2
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.1	.1	.2	.6	7.7	12.9	1.9	.3	.0	.2	24.0	24.0
10+	0-3	.1	*	.1	.1	1.1	.8	.4	.1	.0	.7	3.4	3.4
	4-10	.3	.1	.2	.9	9.5	22.5	4.7	.7	.0	.0	38.8	38.8
	11-21	.0	.1	.1	.1	7.1	20.6	2.5	*	.0	.0	30.5	30.5
	22+	.0	.0	.0	.0	.1	.1	.1	.0	.0	.0	.3	.3
	TOT %	.4	.2	.4	1.1	17.7	43.9	7.6	.7	.0	.7	73.0	73.0
TOT OBS		1877											
TOT PCT		.6	.4	.7	1.9	26.0	58.0	10.2	1.1	.0	1.1	100.0	

JULY

PERIOD: (PRIMARY) 1924-1977
(OVER-ALL) 1862-1977AREA 0035 BUENAVENTURA SW
1.7N 80.7W

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NH >4/8) AND
OCCURRENCE OF NH <5/8 BY HOUR

HOURL (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00003	.6	.6	5.0	15.9	29.1	13.8	2.2	.9	.0	.0	68.1	31.9	320
06009	.8	.8	3.1	20.0	29.2	11.5	3.8	.8	.4	.8	71.2	28.8	260
12015	.3	.6	5.1	22.6	29.3	12.4	3.2	1.3	.6	.0	75.5	24.5	314
18021	.3	.3	2.4	15.4	32.5	10.8	4.5	1.4	.0	.7	68.5	31.5	286
TOT	6	7	47	218	354	144	40	13	3	4	836	344	1180
PCT	.5	.6	4.0	18.5	30.0	12.2	3.4	1.1	.3	.3	70.8	29.2	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOURL (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.0	.4	.2	1.1	20.9	77.4	446
06009	.2	.2	.2	3.3	29.9	66.2	512
12015	.2	.0	.2	3.7	22.1	73.8	435
18021	.0	.2	.6	1.4	24.0	73.9	505
TOT	2	4	6	45	463	1378	1898
PCT	.1	.2	.3	2.4	24.4	72.6	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR
CEILING HGT (FEET, NH >4/8), BY HOUR

HOURL (GMT)	<150 <500	<600 <1	<1000 <5	1000+ AND 5+	NH <5/8 AND 5+	TOTAL OBS
00003	.6	6.5	23.4	46.8	29.9	308
06009	.8	4.7	25.4	46.9	27.7	256
12015	.3	6.2	29.9	46.4	23.7	308
18021	.4	3.2	20.4	49.8	29.7	279
TOT	6	60	286	546	319	1151
PCT	.5	5.2	24.8	47.4	27.7	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
90/94	.0	.0	.0	.1	.0	.0	.0	.0	1	.1
85/89	.0	.0	.0	.0	.3	.5	.0	.0	12	.8
80/84	.0	.0	.0	.1	.5	5.6	5.4	.8	184	12.5
75/79	.0	.0	.2	.1	.7	9.2	36.1	20.4	979	66.7
70/74	.0	.0	.0	.1	.0	2.1	9.5	7.2	277	18.9
65/69	.0	.0	.0	.0	.0	.0	.6	.4	15	1.0
TOTAL	0	0	3	5	22	256	759	423	1468	100.0
PCT	.0	.0	.2	.3	1.5	17.4	51.7	28.8		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
90/94	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0
85/89	.1	.0	.2	.1	.2	.2	.1	.0	.0	.0
80/84	.1	.1	.3	.3	3.7	6.5	1.6	.1	.0	.0
75/79	.5	.2	.3	1.0	17.7	40.7	5.2	.3	.0	.6
70/74	.0	.0	.2	.9	7.7	9.2	.6	.2	.0	.0
65/69	.0	.0	.0	.2	.3	.4	.1	.0	.0	.1
TOTAL	.6	.4	.8	2.5	29.6	57.2	7.6	.6	.0	.7

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOURL (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	85	82	81	77	72	69	66	76.8	601
06009	82	81	80	76	72	69	64	76.1	772
12015	89	82	80	76	72	68	65	76.3	569
18021	93	87	83	78	73	71	68	78.3	781
TOT	93	84	82	77	72	69	64	76.9	2723

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOURL (GMT)	0-29	30-39	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	.5	.3	14.9	58.8	25.5	85	369
06009	.0	.5	.5	12.1	47.7	39.2	87	388
12015	.0	.3	1.4	8.9	56.2	33.2	87	361
18021	.0	.8	3.8	93.7	44.7	17.0	82	371
TOT	0	8	22	259	771	429	85	1469

JULY

PERIOD: (PRIMARY) 1924-1977
(OVER-ALL) 1862-1977

TABLE 17

AREA 0035 BUENAVENTURA SW
1.7N 80.7WPCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	65 68	69 72	73 76	77 80	81 84	85 88	89 92	TOT	W FOG	NO FOG
14/16	.0	.0	.0	.0	.1	.0	.0	1	.0	.1
11/13	.0	.0	.0	.0	.1	.0	.0	2	.0	.1
9/10	.0	.0	.1	.1	.0	.0	.1	3	.0	.2
7/8	.0	.1	.2	.4	.1	.0	.1	13	.1	.8
6	.0	.0	.2	.1	.1	.1	.0	6	.0	.4
5	.0	.0	.1	.1	.3	.1	.0	8	.0	.5
4	.0	.1	.2	.3	.6	.3	.0	22	.0	1.5
3	.0	.0	.2	.5	1.0	.1	.1	29	.1	1.9
2	.0	.0	.0	1.4	.9	.1	.0	35	.1	2.3
1	.0	.1	.5	1.8	1.2	.1	.0	55	.1	3.7
0	.1	.1	.8	6.2	1.0	.0	.0	118	.1	8.0
-1	.1	.2	2.5	10.3	.7	.0	.0	201	.2	13.6
-2	.0	.2	5.6	12.3	.7	.0	.0	274	.3	18.5
-3	.1	.4	8.3	7.7	.3	.0	.0	244	.2	16.5
-4	.1	1.0	7.3	3.6	.0	.0	.0	175	.0	12.0
-5	.0	1.4	4.4	2.1	.1	.0	.0	117	.1	8.0
-6	.1	1.1	2.7	1.4	.1	.0	.0	81	.0	5.6
-7/-8	.1	1.1	1.5	1.5	.0	.0	.0	61	.0	4.2
-9/-10	.0	.2	.5	.0	.0	.0	.0	11	.0	.8
-11/-12	.0	.0	.1	.0	.0	.0	.0	1	.0	.1
TOTAL	8	88	515	726	105	12	3	1457	1.3	98.7
PCT	.5	6.0	35.3	49.8	7.2	.8	.2	100.0	1.3	98.7

PERIOD: (OVER-ALL) 1963-1977

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	N						PCT	NE						PCT
	1-3	4-10	11-21	22-33	34-47	48+		1-3	4-10	11-21	22-33	34-47	48+	
<1	.2	.5	.0	.0	.0	.0	.7	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.2	.2	.0	.0	.0	.3
3-4	.0	.0	.1	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.2	.5	.1	.0	.0	.0	.8	.0	.2	.2	.0	.0	.0	.3

HGT	E						PCT	SE						PCT
	1-3	4-10	11-21	22-33	34-47	48+		1-3	4-10	11-21	22-33	34-47	48+	
<1	.0	.1	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.2	.0	.0	.0	.0	.2	.0	.2	.1	.0	.0	.0	.3
3-4	.0	.0	.2	.0	.0	.0	.2	.0	.4	.0	.0	.0	.0	.5
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.1	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.3	.3	.0	.0	.0	.6	.0	.7	.2	.0	.0	.0	.9

PERIOD: (OVER-ALL) 1963-1977

JULY

AREA 0035 BUENAVENTURA SW
1.7N 80.7W

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	1.2	1.2	.3	.0	.0	.0	2.8	.3	1.6	.2	.0	.0	.0	2.1
1-2	.0	3.5	3.8	.0	.0	.0	7.3	.2	13.1	6.4	.0	.0	.0	19.7
3-4	.1	3.3	5.2	.0	.0	.0	8.6	.2	12.0	14.4	.3	.0	.0	27.0
5-6	.2	2.0	3.1	.1	.0	.0	5.3	.0	2.4	9.5	*	.0	.0	11.9
7	.0	.0	.1	.2	.0	.0	.4	.0	*	1.4	.0	.0	.0	1.5
8-9	.0	.0	.1	.0	.0	.0	.1	.0	.0	.2	.0	.0	.0	.2
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.2
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.5	10.0	12.8	.3	.0	.0	24.8	.6	29.2	32.3	.4	.0	.0	62.5

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.3	1.0	.0	.0	.0	.0	1.3	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	1.7	1.2	.0	.0	.0	2.9	.0	.3	.0	.0	.0	.0	.3	.3
3-4	.0	2.1	1.9	.0	.0	.0	4.0	.0	.3	*	.0	.0	.0	.4	.4
5-6	.0	.0	.5	.0	.0	.0	.5	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.1	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.3	5.0	3.6	.0	.0	.0	8.9	.0	.7	*	.0	.0	.0	.7	99.3

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT
<1	2.8	4.5	.5	.0	.0	.0	7.9	085
1-2	.2	19.3	11.6	.0	.0	.0	31.0	
3-4	.5	18.1	21.8	.3	.0	.0	40.7	
5-6	.2	4.4	13.1	.2	.0	.0	17.8	
7	.0	.2	1.7	.2	.0	.0	2.0	
8-9	.0	.0	.5	.0	.0	.0	.5	
10-11	.0	.0	.2	.0	.0	.0	.2	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	3.7	46.4	49.2	.7	.0	.0	100.0	597

PERIOD: (OVER-ALL) 1949-1977

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	2.9	13.0	25.0	12.7	2.0	.7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	576
6-7	.0	1.5	10.8	10.9	3.1	.5	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	269
8-9	.0	.1	1.8	3.0	.8	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	61
10-11	.0	.7	.2	.4	.3	.3	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	21
12-13	.0	.0	.2	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3
>13	.0	.0	.0	.4	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	6
INDET	1.3	1.9	1.3	1.7	.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	68
TOTAL	4.2	17.3	40.4	29.2	7.0	1.7	.3	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1004
PCT	4.2	17.2	40.2	29.1	7.0	1.7	.3	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0

PERIOD: (PRIMARY) 1929-1977
(OVER-ALL) 1880-1977

AUGUST

AREA 0035 BUENAVENTURA SW
1.7N 80.6W

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

PRECIPITATION TYPE										OTHER WEATHER PHENOMENA					
WIND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST BLWG SNOW	NO SIG WEA
N	.0	13.6	13.6	.0	.0	.0	.0	27.3	.0	18.2	.0	.0	.0	.0	54.5
NE	.0	9.5	2.4	.0	.0	.0	9.5	21.4	9.5	.0	.0	.0	.0	9.5	59.5
E	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
SE	.0	8.5	.0	.0	.0	.0	.0	8.5	5.1	.8	5.1	.0	.0	.0	80.5
S	2.4	2.3	4.4	.0	.0	.0	.0	8.7	4.1	.4	1.8	.0	.0	.2	84.8
SW	2.9	1.8	2.7	.0	.0	.0	.0	7.2	4.5	.7	.7	.0	.0	*	87.0
W	3.8	2.7	2.7	.0	.0	.0	.0	9.2	3.5	1.7	.7	.0	.0	.0	85.0
NW	.0	18.8	.0	.0	.0	.0	.0	18.8	.0	.0	.0	.0	.0	.0	81.3
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	12.5	.0	.0	.0	.0	87.5
TOT PCT	2.7	2.4	3.1	.0	.0	.0	.1	8.1	4.2	.8	1.1	.0	.0	.1	85.7
TOT OBS:	1414														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE								OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST BLWG SNOW	NO SIG WEA	
00003	2.6	3.1	2.6	.0	.0	.0	.3	8.6	3.4	.5	.8	.0	.0	.3	86.4	
06009	2.4	2.9	5.0	.0	.0	.0	.0	10.0	3.2	2.9	.9	.0	.0	.3	82.9	
12015	5.1	.8	4.3	.0	.0	.0	.0	9.7	5.9	.0	1.1	.0	.0	.0	83.3	
18021	1.8	2.7	.6	.0	.0	.0	.0	5.0	4.1	.0	1.5	.0	.0	.0	89.4	
TOT PCT	3.0	2.4	3.1	.0	.0	.0	.1	8.4	4.2	.8	1.0	.0	.0	.1	85.5	
TOT OBS:	1433															

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							48+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)						
	0-3	4-10	11-21	22-33	34-47	00	03					06	09	12	15	18	21	
N	.1	.4	.0	.0	.0	.0	.4	6.3	.2	.0	.8	1.0	.7	.0	.0	.4		
NE	.0	.4	.1	.0	*	.0	.5	12.0	.8	2.7	.5	1.0	.6	.0	.2	.0		
E	.1	.3	.2	*	.0	.0	.6	11.8	.8	.0	.2	.7	.7	.0	.8	.0		
SE	.1	1.1	.4	.0	.0	.0	1.6	8.9	1.3	.0	2.0	2.2	1.5	6.0	1.4	.8		
S	1.0	14.4	12.0	.0	.0	.0	27.5	10.5	21.6	28.4	25.0	20.7	31.8	43.5	33.6	19.8		
SW	1.1	30.6	23.2	.5	.0	.0	57.3	10.7	60.1	62.2	56.4	58.8	56.3	47.3	54.6	65.1		
W	.4	5.8	4.0	.0	.0	.0	10.2	9.7	13.5	6.8	12.9	11.8	6.5	3.3	8.0	12.0		
NW	.1	.7	.1	.0	.0	.0	1.0	6.7	.9	.0	1.3	2.0	1.0	.0	.7	1.1		
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
CALM	.9						.9	.0	.8	.0	.8	2.0	1.2	.0	.8	.8		
TOT OBS	90	1273	997	13	1	0	2374		10.4	511	37	471	151	499	46	528	131	
TOT PCT	3.8	53.6	42.0	.5	*	.0		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)						
	0-6	7-16	17-27	28-40	41+						00	03	06	12	15	18	21
N	.2	.2	.0	.0	.0			.4	6.3	.2	.9	.6	.1				
NE	.1	.4	*	.0	.0			.5	12.0	.8	.6	.5	.2				
E	.2	.2	.1	.0	.0			.6	11.8	.8	.3	.6	.6				
SE	.4	1.1	*	.0	.0			1.6	8.9	1.3	.2	2.0	1.8	1.3			
S	5.0	20.3	2.2	.0	.0			27.5	10.5	22.0	24.0	32.8	30.9				
SW	8.1	45.1	4.2	.0	.0			57.3	10.7	60.3	57.0	55.6	56.7				
W	2.5	7.3	.3	.0	.0			10.2	9.7	13.0	12.6	6.2	8.8				
NW	.6	.4	.0	.0	.0			1.0	6.7	.8	1.4	.9	.8				
VAR	.0	.0	.0	.0	.0			.0	.0	.0	.0	.0	.0				
CALM	.9							.9	.0	.7	1.1	1.1	.8				
TOT OBS	430	1779	163	2	0	2374			10.4	548	622	545	659				
TOT PCT	18.1	74.9	6.9	.1	.0			100.0		100.0	100.0	100.0	100.0				

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PERIOD: (PRIMARY) 1929-1977
(OVER-ALL) 1880-1977AREA 0035 BUENAVENTURA SW
1.7N 80.6W

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	WIND SPEED (KNOTS)						MEAN	PCT FREQ	TOTAL OBS
		1-3	4-10	11-21	22-33	34-47	48+			
00003	.7	3.3	53.3	42.0	.5	.2	.0	10.5	100.0	548
06009	1.1	2.4	60.5	35.2	.8	.0	.0	9.9	100.0	622
12015	1.1	4.4	48.6	45.5	.4	.0	.0	10.5	100.0	545
18021	.8	1.7	51.6	45.5	.5	.0	.0	10.7	100.0	659
TOT	22	68	1273	997	13	1	0	10.4		2374
PCT	.9	2.9	53.6	42.0	.5	.1	.0		100.0	

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & 8 OBS CO	TOTAL OBS	MEAN CLOUD COVER
N	.0	.1	.1	.2		6.2
NE	.3	*	.3	*		3.7
E	.2	*	.3	.1		4.6
SE	*	.4	.7	.8		6.4
S	.3	1.9	11.6	14.4		7.0
SW	.8	3.5	22.6	30.1		7.0
W	.4	.5	5.0	4.1		6.7
NW	.1	*	.4	.1		5.7
VAR	.0	.0	.0	.0		5.0
CALM	.1	.1	.3	.2		5.8
TOT OBS	25	76	474	573	1148	6.9
TOT PCT	2.2	6.6	41.3	49.9	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT.) NH >4/8
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

	000 149	150 299	300 599	400 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH <5/8 ANY HGT	TOTAL OBS
N	.0	.0	.1	.0	.1	.0	.0	.0	.0	.0	.0	.2
NE	.0	.0	*	.1	.0	.0	.0	.0	.0	.0	.0	.6
E	.0	.0	.0	.0	.1	.0	.1	.0	.0	.0	.0	.5
SE	.0	.0	.2	.1	.5	.3	.1	.0	.0	.0	.0	.5
S	.1	.3	1.3	4.9	7.9	3.9	1.5	.8	.0	.0	.0	7.5
SW	.2	.6	1.3	12.2	17.5	6.5	2.5	.7	.0	.0	.0	15.5
W	.0	.2	.2	1.4	1.3	1.2	.6	.1	.0	.2	.4	7.7
NW	.0	.0	*	*	.1	.0	.0	.0	.0	.0	.0	.5
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.1	.0	.1	.0	.0	.0	.0	.0	.0	.5
TOT OBS	3	13	38	214	316	137	56	18	0	2	351	1148
TOT PCT	.3	1.1	3.3	18.6	27.5	11.9	4.9	1.6	.0	.2	30.6	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE
OF CEILING HEIGHT (NH >4/8) AND VSBY (NH)

CEILING (FEET)	VSBY (NH)							
	= OR >10	= OR >5	= OR >2	= OR >1	= OR >1/2	= OR >1/4	= OR >50YD	= OR >0
= OR >6500	.2	.2	.2	.2	.2	.2	.2	.2
= OR >5000	1.3	1.7	1.7	1.7	1.7	1.7	1.7	1.7
= OR >3500	4.9	6.5	6.7	6.7	6.7	6.7	6.7	6.7
= OR >2000	15.2	18.4	18.6	18.6	18.6	18.6	18.6	18.6
= OR >1000	39.3	45.6	46.1	46.1	46.1	46.1	46.1	46.1
= OR >600	54.9	64.1	64.8	64.8	64.8	64.8	64.8	64.8
= OR >300	57.1	67.1	68.0	68.1	68.1	68.1	68.1	68.1
= OR >150	57.5	68.1	69.0	69.2	69.2	69.2	69.2	69.2
= OR > 0	57.5	68.3	69.3	69.4	69.4	69.4	69.4	69.4
TOTAL	664	789	800	802	802	802	802	802

TOTAL NUMBER OF OBS: 1155

PCT FREQ NH <5/8: 30.6

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	OBS CO	TOTAL OBS
1.1	2.4	5.7	8.9	11.8	7.8	11.5	13.4	37.1	.2	1241

PERIOD: (PRIMARY) 1929-1977
(OVER-ALL) 1880-1977

AUGUST

AREA 0035 BUENAVENTURA SW
1.7N 80.6W

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1	
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.1	
	TOT %	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.1	
1<2	PCP	.1	*	.0	.0	.0	.1	.0	.0	.0	.0	.2	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.1	*	.0	.0	.0	.1	.0	.0	.0	.0	.2	
2<5	PCP	.0	.1	.0	.0	.1	.4	.1	.0	.0	.0	.7	
	NO PCP	.0	.1	.0	.0	.1	.4	.1	.0	.0	.0	.6	
	TOT %	.0	.1	.0	.0	.2	.8	.2	.0	.0	.0	1.4	
5<10	PCP	.0	.0	.0	.2	1.3	2.0	.2	.0	.0	.0	3.8	
	NO PCP	.2	.1	.1	.5	4.3	6.6	1.5	.1	.0	.0	13.5	
	TOT %	.2	.2	.1	.7	5.6	8.6	1.7	.1	.0	.0	17.2	
10+	PCP	.1	.0	.0	.0	.9	1.4	.6	.2	.0	.0	3.1	
	NO PCP	.1	.3	.5	1.4	21.5	45.0	8.0	.6	.0	.6	78.0	
	TOT %	.2	.3	.5	1.4	22.4	46.4	8.6	.7	.0	.6	81.1	
TOT OBS													1405
TOT PCT		.4	.7	.6	2.1	28.2	55.9	10.6	.9	.0	.6	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.1	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1	
	11-21	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.1	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.1	.1	.0	.0	.0	.1	.0	.0	.0	.0	.2	
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	*	*	.0	.0	.0	.1	.0	.1	.0	.0	.2	
	11-21	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.2	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	*	*	.0	.0	.0	.3	.0	.1	.0	.0	.4	
2<5	0-3	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1	
	4-10	.0	.1	.0	.0	.1	.6	.2	*	.0	.0	1.1	
	11-21	.0	.0	.0	.0	*	.2	*	.0	.0	.0	.3	
	22+	.0	.1	.0	.0	.0	.1	.0	.0	.0	.0	.1	
	TOT %	.0	.1	.0	.0	.2	1.0	.3	*	.0	.0	1.6	
5<10	0-3	*	.0	.0	.1	.1	.1	.0	*	.0	.1	.4	
	4-10	.1	.1	.1	.5	2.6	4.9	.9	.1	.0	.0	9.3	
	11-21	.0	.1	.0	.1	2.1	3.9	.7	.0	.0	.0	6.9	
	22+	.0	.0	.1	.0	.0	.1	.0	.0	.0	.0	.1	
	TOT %	.1	.2	.1	.7	4.8	8.9	1.6	.1	.0	.1	16.7	
10+	0-3	*	.0	.0	.0	1.0	.9	.4	.1	.0	.8	3.2	
	4-10	.1	.2	.2	.8	10.1	25.3	5.2	.5	.0	.0	42.4	
	11-21	.0	.1	.2	.3	9.4	21.5	3.6	.2	.0	.0	35.3	
	22+	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.2	
	TOT %	.1	.3	.4	1.1	20.5	47.9	9.1	.8	.0	.8	81.1	
TOT OBS													1696
TOT PCT		.4	.6	.5	1.9	25.6	58.2	11.0	1.0	.0	.9	100.0	

PERIOD: (PRIMARY) 1929-1977
(OVER-ALL) 1880-1977

AUGUST

AREA 0035 BUENAVENTURA SW
1,7N 80.6W

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET) NH >4/8) AND
OCCURRENCE OF NH <5/8 BY HOUR

HOURL (GMT)	000 149	150 299	300 399	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00003	.0	1.5	3.4	18.5	25.0	9.9	4.0	.9	.0	.6	63.9	36.1	324
06009	.8	1.2	1.6	19.4	26.7	11.6	7.0	1.9	.0	.0	70.2	29.8	258
12015	.3	1.6	3.8	22.1	26.8	13.9	3.2	2.5	.0	.0	74.1	25.9	317
18021	.0	.0	4.0	12.9	30.2	11.9	5.8	.7	.0	.0	65.5	34.5	278
TOT	3	13	38	216	319	139	57	18	0	2	805	372	1177
PCT	.3	1.1	3.2	18.4	27.1	11.8	4.8	1.5	.0	.2	68.4	31.6	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NH) BY HOUR

HOURL (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.2	.2	.0	1.2	14.7	83.6	422
06009	.0	.2	.7	2.3	23.4	73.4	440
12015	.0	.2	.7	2.1	14.4	82.5	423
18021	.0	.0	.2	.9	14.8	84.0	425
TOT	1	3	7	28	289	1382	1710
PCT	.1	.2	.4	1.6	16.9	80.8	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NH) AND/OR
CEILING HGT (FEET) NH >4/8) BY HOUR

HOURL (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND 5+	NH <5/8 AND 5+	TOTAL OBS
00003	.3	5.7	25.2	41.0	33.8	317
06009	.8	3.6	24.5	47.0	28.5	253
12015	.3	5.4	28.4	46.3	25.2	313
18021	.0	4.0	17.6	48.9	33.5	272
TOT	4	55	279	527	349	1155
PCT	.3	4.8	24.2	45.6	30.2	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
90/94	.0	.0	.0	.0	.1	.0	.0	.0	2	.1
89/89	.0	.0	.0	.0	.0	.5	.1	.1	9	.7
80/84	.0	.0	.0	.1	.8	5.5	4.5	.7	157	11.5
75/79	.0	.0	.0	.0	.2	11.1	35.6	13.3	821	60.2
70/74	.0	.0	.0	.0	.1	2.1	15.2	8.1	349	25.6
65/69	.0	.0	.0	.0	.0	.1	1.0	.7	26	1.9
TOTAL	0	0	0	1	18	264	769	312	1364	100.0
PCT	.0	.0	.0	.1	1.3	19.4	56.4	22.9		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.0	.0	.0	.0	.1	.1	.0	.0	.0	.0
.0	.1	.1	.1	.1	.4	.1	.0	.0	.0
.0	.3	.4	.2	3.0	5.7	1.6	.2	.0	.1
.3	.2	.1	.6	17.0	34.0	7.1	.5	.0	.4
.0	.0	.2	.8	9.6	13.5	1.2	.1	.0	.2
.0	.0	.0	.4	.6	.7	.1	.0	.0	.0
.3	.6	.8	2.1	30.4	54.3	10.1	.7	.0	.7

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOURL (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	84	82	80	77	72	69	67	76.4	551
06009	84	80	79	76	70	66	65	75.4	623
12015	85	82	80	76	71	68	66	75.6	552
18021	92	86	83	78	73	70	68	78.2	657
TOT	92	84	81	77	71	68	65	76.5	2383

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOURL (GMT)	0-29	30-39	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	.0	.8	17.7	58.7	22.7	85	361
06009	.0	.0	.0	10.9	60.3	28.8	86	330
12015	.0	.0	.8	10.2	60.9	28.0	86	371
18021	.0	.3	3.7	39.9	44.8	11.3	81	326
TOT	0	1	18	268	783	318	85	1388

AUGUST

PERIOD: (PRIMARY) 1929-1977
(OVER-ALL) 1880-1977

TABLE 17

AREA 0035 BUENAVENTURA SW
1.7N 80.6W

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	65 68	69 72	73 76	77 80	81 84	85 88	89 92	TOT	W FOG	NO FOG
17/19	.0	.0	.0	.1	.0	.0	.0	1	.0	.1
14/16	.0	.0	.0	.1	.0	.0	.0	1	.0	.1
9/10	.0	.0	.0	.2	.2	.0	.1	5	.0	.4
7/8	.0	.0	.0	.1	.5	.0	.0	7	.0	.5
6	.0	.1	.2	.2	.0	.0	.1	8	.0	.6
5	.0	.1	.2	.5	.4	.3	.1	19	.0	1.5
4	.0	.2	.2	.2	.5	.2	.0	15	.0	1.1
3	.0	.2	.0	.5	.8	.0	.0	19	.0	1.5
2	.1	.0	.3	1.1	1.2	.1	.0	36	.2	2.6
1	.0	.1	.3	2.4	1.1	.1	.0	53	.0	4.1
0	.1	.2	1.3	3.3	1.3	.1	.0	83	.2	6.2
-1	.0	.2	3.1	8.1	.6	.0	.0	157	.3	11.7
-2	.0	.6	7.9	10.4	.7	.0	.0	256	.2	19.4
-3	.2	1.1	9.0	8.2	.2	.0	.0	244	.0	18.7
-4	.0	2.0	7.4	3.0	.0	.0	.0	162	.1	12.3
-5	.2	1.6	4.7	2.1	.1	.0	.0	114	.1	8.6
-6	.1	1.5	2.2	.6	.0	.0	.0	58	.0	4.4
-7/-8	.2	1.1	1.1	.7	.0	.0	.0	42	.2	3.1
-9/-10	.3	.8	.5	.1	.0	.0	.0	22	.0	1.7
-11/-13	.1	.3	.0	.1	.0	.0	.0	6	.1	.4
TOTAL	15	132	503	100	9	3		1308	1.5	1293
PCT	1.1	10.1	38.5	41.7	7.6	.7	.2	100.0	1.1	98.9

PERIOD: (OVER-ALL) 1963-1977

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	N						PCT	NE						PCT
	1-3	4-10	11-21	22-33	34-47	48+		1-3	4-10	11-21	22-33	34-47	48+	
41	.1	.3	.0	.0	.0	.0	.4	.0	.2	.0	.0	.0	.0	.2
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.2
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.2
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.1	.3	.0	.0	.0	.0	.4	.0	.6	.2	.0	.0	.0	.7

HGT	E						PCT	SE						PCT
	1-3	4-10	11-21	22-33	34-47	48+		1-3	4-10	11-21	22-33	34-47	48+	
41	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.2	.0	.0	.0	.2	.0	.5	.3	.0	.0	.0	.8
3-4	.0	.3	.0	.0	.0	.0	.3	.0	.2	.2	.0	.0	.0	.5
5-6	.0	.0	.1	.0	.0	.0	.1	.0	.2	.4	.0	.0	.0	.6
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.2	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.3	.3	.2	.0	.0	.8	.0	1.0	.9	.0	.0	.0	1.9

PERIOD: (OVER-ALL) 1963-1977

AUGUST

AREA 0035 BUENAVENTURA SW
1.7N 80.6W

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	2.6	2.6	2.3	.0	.0	.0	5.5	.6	2.6	.2	.0	.0	.0	3.5
1-2	.0	6.7	2.4	.0	.0	.0	9.1	.2	14.1	5.7	.0	.0	.0	20.0
3-4	.0	3.5	6.3	.0	.0	.0	9.8	.0	9.9	11.0	.2	.0	.0	21.0
5-6	.0	.6	3.8	.0	.0	.0	4.5	.0	.6	7.4	.0	.0	.0	8.0
7	.0	.0	.7	.0	.0	.0	.7	.0	.0	1.5	.2	.0	.0	1.7
8-9	.0	.1	.1	.0	.0	.0	.3	.0	.0	.1	.0	.0	.0	.1
10-11	.0	.0	.2	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	2.6	13.6	13.8	.0	.0	.0	30.1	.9	27.2	25.9	.3	.0	.0	54.3

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.4	1.3	.0	.0	.0	.0	1.8	.1	.2	.0	.0	.0	.0	.3	
1-2	.1	2.9	1.8	.0	.0	.0	4.9	.0	.0	.1	.0	.0	.0	.1	
3-4	.0	1.0	1.6	.0	.0	.0	2.6	.0	.0	.0	.0	.0	.0	.0	
5-6	.0	.1	.7	.0	.0	.0	.9	.0	.0	.0	.0	.0	.0	.0	
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.1	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.6	5.4	4.2	.0	.0	.0	10.2	.1	.2	.1	.0	.0	.0	.4	99.0

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	5.0	7.2	.5	.0	.0	.0	12.8	
1-2	.2	24.4	10.4	.2	.0	.0	35.2	
3-4	.0	15.1	19.1	.2	.0	.0	34.3	
5-6	.0	1.6	12.7	.0	.0	.0	14.2	
7	.0	.0	2.3	.2	.0	.0	2.4	
8-9	.0	.2	.3	.2	.0	.0	.7	
10-11	.0	.0	.2	.0	.0	.0	.2	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.2	.0	.0	.0	.0	.2	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	5.4	48.7	45.4	.5	.0	.0	100.0	577

PERIOD: (OVER-ALL) 1949-1977

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	4.6	15.3	23.2	9.4	1.2	.3	.0	.0	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	526
6-7	.0	2.0	9.4	9.2	3.2	.8	.1	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	242
8-9	.0	.3	1.1	2.7	1.5	.7	.3	.2	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	69
10-11	.0	.6	.5	.5	.1	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	19
12-13	.0	.0	.7	.5	.1	.0	.1	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	16
>13	.0	.0	.0	.6	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	7
INDET	1.8	1.7	3.2	2.1	.5	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	90
TOTAL	.62	192	370	242	66	19	7	4	6	1	0	0	0	0	0	0	0	0	0	0	969
PCT	6.4	19.8	38.2	25.0	6.8	2.0	.7	.4	.6	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0

SEPTEMBER

PERIOD: (PRIMARY) 1927-1977
(OVER-ALL) 1880-1977

AREA 0035 BUENAVENTURA SW
1.8N 80.7W

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
N	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	17.4	.0	82.6
NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	39.3	.0	.0	.0	39.3	39.3
E	.0	.0	.0	.0	.0	.0	.0	.0	.0	29.0	.0	.0	.0	.0	75.0
SE	5.6	6.7	14.6	.0	.0	.0	.0	27.0	4.5	.0	.0	.0	.0	.0	68.5
S	3.7	2.5	4.9	.0	.0	.0	.0	10.9	2.8	1.8	.8	.0	.0	.0	83.7
SW	1.8	2.4	2.9	.0	.0	.0	.0	7.0	4.5	.7	.0	.0	.0	.0	87.9
W	2.6	3.1	2.0	.0	.0	.0	.0	7.7	5.3	.6	.0	.0	.0	.0	86.4
NW	20.3	.0	.0	.0	.0	.0	.0	20.3	19.2	5.1	.0	.0	.0	.0	64.6
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	9.1	.0	18.2	.0	.0	.0	.0	27.3	.0	.0	.0	.0	.0	.0	72.7
TOT PCT	2.7	2.5	3.6	.0	.0	.0	.0	8.7	4.2	1.2	.2	.0	.1	.1	85.7
TOT OBS:	1373														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
0000	1.2	1.2	2.3	.0	.0	.0	.0	4.6	3.2	1.2	.3	.0	.0	.0	90.8
0600	3.9	3.9	6.0	.0	.0	.0	.0	13.8	3.9	3.3	.3	.0	.0	.0	79.6
1200	4.4	2.2	5.3	.0	.0	.0	.0	11.6	7.8	.6	.0	.0	.3	.3	79.5
1800	1.4	2.9	1.1	.0	.0	.0	.0	5.4	2.0	.0	.3	.0	.0	.0	92.3
TOT PCT	2.7	2.5	3.7	.0	.0	.0	.0	8.8	4.2	1.2	.2	.0	.1	.1	85.5
TOT OBS:	1391														

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)								TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	48+						00	03	06	09	12	15	18	21
N	.1	.2	.1	.0	.0	.0			.4	8.6	.0	.0	1.0	.0	.0	.0	.0	.0	.0
NE	.1	.2	.1	.0	.0	.0			.3	7.3	.2	1.7	.1	.6	.2	.0	.4	.0	.0
E	.0	.3	.0	.0	.0	.0			.3	6.6	.4	.0	.4	.0	.4	.0	.0	.0	.0
SE	.1	1.1	.2	.0	.0	.0			1.5	7.7	.9	1.7	.7	3.4	1.7	2.2	2.0	1.3	.0
S	.4	13.1	11.9	.2	.0	.0			25.6	11.0	19.9	30.0	23.5	20.1	27.5	42.2	30.0	25.8	.0
SW	.6	30.1	29.6	.8	.0	.0			61.1	11.2	62.3	60.4	60.2	65.1	60.6	54.3	60.5	62.3	.0
W	.3	6.0	2.5	.0	.0	.0			8.8	9.3	13.1	4.6	11.7	8.6	7.8	1.3	5.2	6.8	.0
NW	.4	.8	.2	.0	.0	.0			1.4	6.8	2.1	1.7	1.9	.9	.7	.0	1.0	2.6	.0
VAR	.0	.0	.0	.0	.0	.0			.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.7	.0	.0	.0	.0	.0			.7	.0	1.1	.0	.4	1.2	.2	.0	1.0	1.3	.0
TOT OBS	65	1213	1044	24	0	0			2346	10.8	461	60	460	162	472	58	518	155	.0
TOT PCT	2.8	51.7	44.5	1.0	.0	.0			100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	.0

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)					TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)			
	0-6	7-16	17-27	28-40	41+				00 03	06 09	12 15	18 21
N	.2	.1	.*	.0	.0	.4	8.6	.0	.7	.7	.0	.0
NE	.1	.1	.0	.0	.0	.3	7.3	.4	.2	.2	.3	.0
E	.2	.1	.0	.0	.0	.3	6.6	.4	.3	.4	.0	.0
SE	.7	.7	.1	.0	.0	1.5	7.7	1.0	1.4	1.8	1.8	.0
S	2.9	20.2	2.5	.0	.0	25.6	11.0	21.1	22.6	29.2	29.0	.0
SW	6.9	48.2	6.0	.0	.0	61.1	11.2	62.0	61.5	59.9	60.9	.0
W	2.4	6.0	.4	.*	.0	8.8	9.3	12.1	10.9	7.1	5.5	.0
NW	.8	.6	.*	.0	.0	1.4	6.8	2.1	1.6	.6	1.3	.0
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.7					.7	.0	1.0	.6	.2	1.0	.0
TOT OBS	351	1783	211	1	0	2346	10.8	521	622	530	673	472
TOT PCT	15.0	76.0	9.0	.0	.0		100.0	100.0	100.0	100.0	100.0	100.0

SEPTEMBER

PERIOD: (PRIMARY) 1927-1977
(OVER-ALL) 1880-1977

AREA 0035 BUENAVENTURA SW
1.8N 80.7W

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	WIND SPEED (KNOTS)						MEAN	PCT FREQ	TOTAL OBS
		1-3	4-10	11-21	22-33	34-47	48+			
00003	1.0	3.1	52.0	43.4	.6	.0	.0	10.6	100.0	521
06009	.6	2.7	56.6	38.7	1.3	.0	.0	10.4	100.0	622
12015	.2	1.3	49.4	47.5	1.5	.0	.0	11.1	100.0	530
18021	1.0	1.2	48.7	48.3	.7	.0	.0	11.0	100.0	673
TOT	17	48	1213	1044	24	0	0	10.8		2346
PCT	.7	2.0	51.7	44.5	1.0	.0	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & NBSCD	TOTAL OBS	MEAN CLOUD COVER	PCT FREQ OF CEILING HEIGHTS (FT, NH > 4/8) AND OCCURRENCE OF NH < 5/8 BY WIND DIRECTION									
							000 149	150 299	300 599	400 999	1000 1999	2000 3999	3500 4999	5000 6499	6500 7999	8000+ ANY HGT
N	.1	.1	.0	.3	6.1	.0	.0	.0	.0	.2	.0	.0	.0	.0	.3	
NE	.0	.0	.3	.0	5.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	
E	.0	.1	.0	.2	6.6	.0	.0	.0	.0	.1	.1	.0	.0	.0	.1	
SE	.0	.0	.1	.6	.8	7.0	.0	.1	.1	.1	.4	.4	.3	.0	.1	
S	.7	1.1	7.8	14.5	7.1	.0	.0	.9	4.8	8.5	4.2	1.2	.1	.1	4.3	
SW	1.2	4.4	23.1	33.2	6.9	.1	.5	1.7	10.6	20.8	8.5	1.8	.6	.3	16.8	
W	.2	.7	3.4	4.8	6.9	.0	.0	.1	1.4	3.0	1.6	.1	.2	.0	2.7	
NW	.0	.0	.6	1.0	7.4	.0	.0	.1	.3	1.0	.1	.0	.0	.0	.1	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.1	.2	.6	7.1	.0	.0	.0	.3	.2	.0	.0	.0	.0	.4	
TOT OBS	22	70	380	584	1056	7.0	.0	.0	30	183	361	157	36	4	263	
TOT PCT	2.1	6.6	36.0	55.3	100.0		.1	.6	2.8	17.5	34.2	14.9	3.4	.9	24.9	

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE
OF CEILING HEIGHT (NH > 4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)							
	> 10	> 5	> 2	> 1	> 1/2	> 1/4	> 50YD	> 0
> 6500	.7	.8	.8	.8	.8	.8	.8	.8
> 5000	1.3	1.6	1.6	1.6	1.6	1.6	1.6	1.6
> 3500	4.0	4.9	5.0	5.0	5.0	5.0	5.0	5.0
> 2000	17.0	19.3	19.4	19.5	19.5	19.5	19.5	19.5
> 1000	46.9	53.2	53.5	53.6	53.6	53.6	53.6	53.6
> 600	61.8	70.6	70.9	71.0	71.0	71.1	71.1	71.1
> 300	63.9	73.2	73.8	73.9	73.9	74.1	74.1	74.1
> 150	64.2	73.8	74.3	74.4	74.4	74.6	74.6	74.6
> 0	64.2	73.9	74.4	74.5	74.5	74.7	74.7	74.7
TOTAL	680	783	789	790	790	792	792	792

TOTAL NUMBER OF OBS: 1060

PCT FREQ NH < 5/8: 25.3

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	8 OBSCD	TOTAL OBS
.9	2.0	5.1	6.9	9.9	8.3	11.3	14.8	40.7	1.1	1147

PERIOD: (PRIMARY) 1927-1977
(OVER-ALL) 1880-1977

SEPTEMBER

AREA 0035 BUENAVENTURA SW
1.8N 80.7W

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1	
1/2<1	PCP	.0	.0	.0	*	.1	.0	.0	.0	.0	.0	.1	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	*	.1	.0	.0	.0	.0	.0	.1	
1<2	PCP	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.1	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.1	
2<5	PCP	.0	.0	.0	.0	.2	.1	.0	.1	.0	.0	.4	
	NO PCP	.0	.1	.0	.0	.3	.7	.2	.1	.0	.0	1.4	
	TOT %	.0	.1	.0	.0	.5	.8	.2	.2	.0	.0	1.8	
5<10	PCP	.0	.0	.0	.3	1.3	2.4	.4	.2	.0	.0	4.6	
	NO PCP	.0	.1	.0	.3	5.5	7.5	1.0	.1	.0	.1	14.7	
	TOT %	.0	.1	.0	.6	6.9	9.9	1.4	.3	.0	.1	19.3	
10+	PCP	.0	.0	.0	.1	1.2	1.7	.2	.0	.0	.2	3.5	
	NO PCP	.4	.1	.3	.9	15.6	47.8	7.4	.9	.0	.4	75.2	
	TOT %	.4	.1	.3	1.0	16.1	49.5	7.6	.9	.0	.7	78.7	
TOT OBS													1365
TOT PCT		.4	.2	.3	1.6	25.6	60.3	9.3	1.4	.0	.8	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	*	*	.0	.0	.0	.0	.0	.1	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	*	*	.0	.0	.0	.0	.0	.1	
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.1	.1	.0	.0	.0	.2	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.1	.1	.0	.0	.0	.2	
2<5	0-3	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.1	
	4-10	.0	.0	.0	.0	.4	.6	.2	.2	.0	.0	1.4	
	11-21	.0	.1	.0	.0	.1	.3	*	.1	.0	.0	.5	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.1	.0	.0	.4	.9	.2	.4	.0	.0	2.0	
5<10	0-3	.0	.0	.0	.1	.2	*	.1	.1	.0	.2	.7	
	4-10	.0	.1	.0	.4	3.3	5.2	.7	.2	.0	.0	9.9	
	11-21	.0	.0	.0	*	2.7	5.6	.7	.1	.0	.0	9.2	
	22+	.0	.0	.0	.0	*	.2	.1	.0	.0	.0	.2	
	TOT %	.0	.1	.0	.5	6.3	11.1	1.5	.4	.0	.2	20.1	
10+	0-3	.1	.0	.0	.1	.4	.6	.2	.3	.0	.6	2.3	
	4-10	.2	.1	.2	.7	8.3	22.9	5.9	.4	.0	.0	38.8	
	11-21	.1	.0	.0	.2	7.7	25.5	2.3	.1	.0	.0	35.8	
	22+	.0	.0	.0	.0	.2	.5	.0	.0	.0	.0	.7	
	TOT %	.4	.1	.2	1.0	16.6	49.5	8.3	.9	.0	.6	77.6	
TOT OBS													1620
TOT PCT		.4	.2	.2	1.5	23.4	61.6	10.2	1.7	.0	.8	100.0	

SEPTEMBER

PERIOD: (PRIMARY) 1927-1977
(OVER-ALL) 1880-1977AREA 0035 BUENAVENTURA SW
1.8N 80.7W

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NH >4/8) AND
OCCURRENCE OF NH <5/8 BY HOUR

HOURL (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00003	.0	1.1	3.2	16.9	30.6	14.4	3.2	1.8	.4	.7	72.2	27.3	284
06009	.4	.0	4.4	18.2	34.7	11.1	4.0	.9	.0	.9	74.7	25.3	225
12015	.0	.7	2.6	21.5	37.1	13.0	3.6	.0	.7	.0	79.2	20.8	307
18021	.0	.4	1.5	11.7	32.0	19.2	2.6	.8	.4	.0	68.4	31.6	266
TOT	1	6	31	186	364	157	36	9	4	4	798	284	1082
PCT	.1	.6	2.9	17.2	33.6	14.5	3.3	.8	.4	.4	73.8	26.2	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOURL (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.0	.0	.0	2.3	15.6	82.0	384
06009	.2	.0	.2	2.1	25.5	71.9	423
12015	.0	.0	.5	2.0	20.2	77.3	401
18021	.2	.2	.0	1.6	18.5	79.4	427
TOT	2	1	3	33	328	1268	1635
PCT	.1	.1	.2	2.0	20.1	77.6	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR
CEILING HGT (FEET, NH >4/8) BY HOUR

HOURL (GMT)	<150 <50VD	<600 <1	<1000 <5	1000+ AND 5+	NH <5/8 AND 5+	TOTAL OBS
00003	.0	4.3	21.5	51.3	27.2	279
06009	.5	5.0	24.7	52.1	23.3	219
12015	.0	3.3	26.3	54.0	19.1	300
18021	.0	2.3	13.7	55.3	30.9	262
TOT	1	39	229	564	267	1060
PCT	.1	3.7	21.6	53.2	25.2	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
90/94	.0	.1	.0	.0	.1	.0	.0	.0	3	.2
85/89	.0	.0	.0	.0	.2	.4	.1	.1	11	.8
80/84	.0	.0	.0	.0	.6	4.4	4.3	1.1	139	10.4
75/79	.0	.0	.0	.1	.7	10.7	35.4	13.7	812	60.6
70/74	.0	.0	.0	.2	1.9	15.4	7.7	3.8	338	25.2
65/69	.0	.0	.0	.0	.1	1.6	1.0	.3	37	2.8
TOTAL	0	2	0	1	24	235	761	317	1340	100.0
PCT	.0	.1	.0	.1	1.8	17.5	56.8	23.7		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.0	.0	.0	.0	.1	.1	.0	.0	.0	.0
.0	.0	.0	.1	.2	.4	.1	.1	.0	.0
.1	.1	.1	.0	2.0	5.4	1.8	.6	.0	.1
.4	.0	.0	.8	13.9	38.3	6.2	.6	.0	.4
.1	.0	.1	.7	9.6	13.0	1.4	.2	.0	.1
.0	.0	.0	.1	1.2	1.4	.0	.0	.0	.0
.6	.1	.2	1.7	27.1	58.6	9.5	1.5	.0	.7

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOURL (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	85	83	80	77	71	69	68	76.3	519
06009	83	81	79	76	71	68	65	75.7	628
12015	90	82	80	76	70	68	65	75.6	529
18021	90	86	84	78	72	69	68	77.9	655
TOT	90	84	81	77	71	69	65	76.4	2331

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOURL (GMT)	0-29	30-39	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	.0	.3	14.9	64.7	20.1	85	343
06009	.0	.0	.9	8.2	59.5	31.4	87	331
12015	.0	.6	.8	11.6	53.8	33.1	86	333
18021	.0	.3	5.2	36.1	47.0	11.5	81	330
TOT	0	3	24	238	764	328	85	1357

SEPTEMBER

PERIOD: (PRIMARY) 1927-1977
(OVER-ALL) 1880-1977AREA 0035 BUENAVENTURA SW
1.8N 80.7W

TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	65 68	69 72	73 76	77 80	81 84	85 88	89 92	TOT	N FOG	WD FOG
14/16	.0	.0	.0	.1	.0	.0	.1	2	.0	.2
11/13	.0	.0	.0	.0	.1	.1	.1	3	.0	.2
9/10	.0	.0	.0	.0	.1	.0	.0	1	.0	.1
7/8	.0	.0	.2	.3	.2	.0	.0	9	.0	.7
6	.0	.0	.1	.0	.1	.2	.0	5	.0	.4
5	.0	.0	.2	.2	.2	.4	.0	12	.0	.9
4	.0	.0	.2	.3	.8	.1	.0	17	.0	1.3
3	.0	.1	.1	.2	1.3	.0	.0	22	.0	1.7
2	.0	.1	.6	.9	.8	.0	.0	31	.0	2.4
1	.0	.2	.6	1.8	.6	.0	.0	42	.0	3.3
0	.0	.2	1.4	6.1	1.3	.0	.0	113	.0	8.9
-1	.0	.6	2.5	8.0	.7	.0	.0	150	.0	11.8
-2	.0	.7	5.0	10.4	.4	.0	.0	209	.1	16.4
-3	.0	1.3	8.7	7.2	.2	.0	.0	221	.1	17.3
-4	.0	2.0	8.0	3.3	.1	.0	.0	170	.1	13.3
-5	.2	2.4	5.8	2.2	.1	.0	.0	137	.0	10.8
-6	.2	1.5	2.9	.5	.0	.0	.0	64	.0	5.0
-7/-8	.4	1.0	2.1	.3	.0	.0	.0	49	.0	3.8
-9/-10	.0	.2	.4	.2	.0	.0	.0	9	.0	.7
-11/-13	.2	.1	.0	.0	.0	.0	.0	3	.0	.2
TOTAL	12	131	493	534	87	10	2	1269	3	1266
PCT	.9	10.3	38.8	42.0	6.9	.8	.2	100.0	.2	99.8

PERIOD: (OVER-ALL) 1963-1977

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	N						PCT	NE						PCT
	1-3	4-10	11-21	22-33	34-47	48+		1-3	4-10	11-21	22-33	34-47	48+	
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.0	.2	.0	.0	.0	.2	.0	.2	.0	.0	.0	.0	.2
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.0	.2	.0	.0	.0	.2	.0	.2	.0	.0	.0	.0	.2

HGT	E						PCT	SE						PCT
	1-3	4-10	11-21	22-33	34-47	48+		1-3	4-10	11-21	22-33	34-47	48+	
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.4	.0	.0	.0	.0	.4	.0	.3	.0	.0	.0	.0	.4
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.2
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.4	.0	.0	.0	.0	.4	.0	.5	.0	.0	.0	.0	.6

PERIOD: (OVER-ALL) 1963-1977

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AREA 0035 BUENAVENTURA SW
1.8N 80.7W

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.2	.3	.0	.0	.0	.0	.5	.0	1.2	.4	.0	.0	.0	1.6
1-2	.1	5.7	3.0	.0	.0	.0	8.9	.0	11.4	6.5	.0	.0	.0	17.9
3-4	.1	5.1	4.2	.1	.0	.0	9.6	.5	10.2	18.6	.2	.0	.0	29.4
5-6	.0	1.1	3.3	.3	.0	.0	4.8	.4	3.0	9.4	.6	.0	.0	13.4
7	.0	.4	.4	.0	.0	.0	.8	.0	.3	1.2	.2	.0	.0	1.7
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.6	.0	.0	.0	.6
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.2
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.5	12.7	11.0	.5	.0	.0	24.6	.8	26.3	36.7	1.0	.0	.0	64.9

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	.1	.2	.0	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	3.8	.4	.0	.0	.0	4.2	.0	.2	.0	.0	.0	.0	.2	.2
3-4	.1	1.7	1.2	.0	.0	.0	3.1	.0	.2	.0	.0	.0	.0	.2	.2
5-6	.0	.3	.3	.0	.0	.0	.6	.0	.2	.0	.0	.0	.0	.2	.2
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.1	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.1	6.0	2.2	.0	.0	.0	8.3	.0	.4	.0	.0	.0	.0	.4	99.4

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	1.1	1.6	.5	.0	.0	.0	3.3	
1-2	.5	21.7	9.8	.0	.0	.0	32.1	
3-4	.7	17.3	24.0	.4	.0	.0	42.4	
5-6	.4	4.6	12.9	.9	.0	.0	18.8	
7	.0	.7	1.6	.2	.0	.0	2.6	
8-9	.0	.0	.7	.0	.0	.0	.7	
10-11	.0	.2	.0	.0	.0	.0	.2	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	2.7	46.1	49.7	1.5	.0	.0	100.0	549

PERIOD: (OVER-ALL) 1949-1977

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT	
<6	.6	12.1	24.3	13.2	1.9	.6	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	490	3
6-7	.1	1.1	10.9	10.4	2.2	.2	.1	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	233	4
8-9	.0	.5	2.9	2.6	1.7	.2	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	75	5
10-11	.0	.4	.1	1.3	1.0	.3	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	30	6
12-13	.0	.0	.2	.5	.9	.0	.3	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	19	7
>13	.0	.0	.0	.5	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	6	5
INDET	.9	1.7	2.3	1.6	.9	.2	.1	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	73	4
TOTAL	15	147	377	279	80	15	7	3	2	1	0	0	0	0	0	0	0	0	0	0	928	4
PCT	1.6	15.9	40.7	30.1	8.6	1.6	.8	.3	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	

OCTOBER

PERIOD: (PRIMARY) 1930-1977
(OVER-ALL) 1861-1977

AREA 0035 BUENAVENTURA SW
1.8N 80.7W

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THOR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
N	12.5	.0	9.4	.0	.0	.0	.0	21.9	.0	.0	.0	.0	.0	.0	78.1
NE	.0	.0	.0	.0	.0	.0	.0	12.5	12.5	.0	.0	12.5	.0	.0	75.0
E	28.0	.0	.0	.0	.0	.0	.0	28.0	.0	.0	.0	.0	.0	.0	72.0
SE	10.2	.0	.0	.0	.0	.0	.0	10.2	1.1	.0	6.8	.0	.0	.0	81.8
S	2.2	3.1	3.2	.0	.0	.0	.0	8.4	3.4	.6	.7	.0	.0	.0	86.9
SW	1.7	2.0	3.0	.0	.0	.0	.0	6.5	4.4	.5	.2	.0	.3	.0	88.0
W	6.0	1.1	2.5	.0	.0	.0	.0	9.6	3.4	2.5	.2	.0	.5	.5	83.3
NW	16.8	.0	3.2	.0	.0	.0	.0	20.0	1.1	8.4	2.1	.0	.0	.0	68.4
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	93.3	.0	.0	.0	.0	33.3	.0	.0	.0	.0	.0	.0	66.7
TOT PCT	2.9	2.1	3.0	.0	.0	.0	.1	7.9	3.8	.9	.5	.0	.3	.1	86.5
TOT OBS:	1560														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THOR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
00003	1.3	2.1	1.6	.0	.0	.0	.0	4.9	4.2	1.0	.0	.0	.0	.3	89.6
06009	3.4	2.7	3.7	.0	.0	.0	.2	9.9	3.0	2.0	.5	.0	.2	.2	84.2
12015	2.8	2.3	3.1	.0	.0	.0	.0	8.2	5.4	.3	1.0	.0	.5	.0	84.7
18021	3.9	1.3	3.6	.0	.0	.0	.0	8.6	3.1	.3	.5	.0	.3	.0	87.3
TOT PCT	2.9	2.1	3.0	.0	.0	.0	.1	7.9	3.9	.9	.5	.0	.3	.1	86.4
TOT OBS:	1567														

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	48+					00	03	06	09	12	15	18	21
N	.1	.3	.1	.0	.0	.0		.4	7.3	.6	2.2	.6	.0	.4	.0	.2	.7	
NE	.1	.1	.1	.0	.0	.0		.4	11.1	.2	.0	.4	.3	.3	.0	.8	.3	
E	.1	.2	.1	.0	.0	.0		.4	8.1	.1	.0	.3	1.0	.2	.0	.9	.0	
SE	.1	.9	.3	.0	.0	.0		1.3	8.6	1.5	.0	1.6	1.2	1.5	1.8	.8	1.1	
S	.6	12.0	11.9	.1	.0	.0		24.5	10.9	18.6	41.8	21.0	21.0	27.4	47.0	28.2	25.0	
SW	.6	27.0	30.6	.6	.0	.0		59.9	11.4	57.8	47.8	59.1	58.7	61.8	47.6	59.6	56.5	
W	.4	7.2	4.6	.1	.0	.0		12.3	9.9	19.0	7.6	15.3	14.3	6.9	3.6	8.3	13.7	
NW	.2	.9	.2	.1	.0	.0		1.4	8.8	1.5	.5	1.4	2.6	1.2	.0	1.1	2.0	
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.4							.4	.0	.6	.0	.4	.7	.2	.0	.2	.7	
TOT OBS	63	1201	1180	21	1	0	2466		11.0	503	46	521	143	517	42	541	153	
TOT PCT	2.6	48.7	47.9	.9	.0	.0		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)					TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)				
	0-6	7-16	17-27	28-40	41+				00	03	06	12	18
N	.2	.2	.0	.0	.0	.4	7.3	.7	.5	.4	.3		
NE	.2	.2	.0	.0	.0	.4	11.1	.2	.4	.3	.7		
E	.2	.1	.1	.0	.0	.4	8.1	.1	.5	.2	.7		
SE	.5	.7	.1	.0	.0	1.3	8.6	1.4	1.3	1.5	.9		
S	4.1	18.1	2.3	.0	.0	24.5	10.9	20.5	21.0	28.9	27.5		
SW	6.9	45.9	6.1	.0	.0	59.9	11.4	57.0	59.0	60.8	58.9		
W	2.6	9.0	.6	.0	.0	12.3	9.9	18.1	15.1	6.6	9.5		
NW	.5	.8	.1	.0	.0	1.4	8.8	1.5	1.7	1.1	1.3		
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
CALM	.4					.4	.0	.5	.5	.2	.3		
TOT OBS	386	1850	228	2	0	2466		549	664	559	694		
TOT PCT	15.7	75.0	9.2	.1	.0	100.0		100.0	100.0	100.0	100.0		

PERIOD: (PRIMARY) 1930-1977
(OVER-ALL) 1861-1977

OCTOBER

AREA 0035 BUENAVENTURA SW
1.8N 80.7W

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)				48+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47					
00003	.5	1.8	52.6	44.3	.7	.0	.0	.0	10.7	100.0	549
06009	.5	2.0	57.1	39.5	.9	.2	.0	.0	10.4	100.0	604
12015	.2	2.3	42.6	53.5	1.4	.0	.0	.0	11.5	100.0	559
18021	.3	2.6	42.5	54.2	.4	.0	.0	.0	11.3	100.0	694
TOT	.9	54	1201	1180	21	1	0	11.0			2466
PCT	.4	2.2	48.7	47.9	.9	*	.0	100.0			

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL CLOUD OBS	MEAN COVER
N	.1	.2	.1	.1		5.2
NE	.2	.2	.1	.1		4.1
E	.0	.1	.1	.2		6.1
SE	.0	.2	.4	.8		7.1
S	.3	1.8	7.0	13.8		7.0
SW	1.9	4.2	23.2	31.5		6.8
W	.9	1.2	5.1	5.0		6.3
NW	.2	*	.3	.4		6.4
VAR	.0	.0	.0	.0		.0
CALM	.0	.0	.2	.1		6.6
TOT OBS	43	97	449	645	1234	6.8
TOT PCT	3.5	7.9	36.4	52.3	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8)
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

	000	150	300	600	1000	2000	3500	5000	6500	8000+	NH <5/8	TOTAL
	149	299	599	999	1999	3499	4999	6499	7999		ANY HGT	OBS
N	.0	.1	.0	.1	.1	.0	.0	.0	.0	.0	.2	
NE	.0	.0	.1	.0	.0	*	.0	.0	.0	.0	.4	
E	.0	.0	.0	.1	.0	.1	.0	.0	.0	.0	.2	
SE	.0	.0	.1	.3	.4	.2	*	.0	.0	.0	.3	
S	.2	.2	.8	4.6	7.6	2.6	1.0	.1	.0	.1	5.8	
SW	.5	.5	2.4	12.4	20.1	6.7	2.1	1.0	.2	.2	14.9	
W	.0	.1	.5	1.7	3.6	1.2	.2	.1	.0	.0	4.7	
NW	.2	.0	.0	.1	.3	.2	.0	.0	.0	.0	.3	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.2	
TOT OBS	8	10	49	238	397	136	42	15	2	3	334	1234
TOT PCT	.6	.8	4.0	19.3	32.2	11.0	3.4	1.2	.2	.2	27.1	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE
OF CEILING HEIGHT (NH >4/8) AND VSBY (NH)

CEILING (FEET)	OR			VSBY (NM)			OR		
	>10	>5	>2	>1	>1/2	>1/4	>50YD	>0	>0
# NR >6500	.4	.4	.4	.4	.4	.4	.4	.4	.4
# NR >5000	1.5	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
# NR >3500	3.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9
# NR >2000	13.8	16.0	16.2	16.2	16.2	16.2	16.2	16.2	16.2
# NR >1000	41.8	47.8	48.2	48.3	48.3	48.3	48.3	48.3	48.3
# NR >600	57.1	66.3	67.2	67.3	67.3	67.3	67.3	67.3	67.3
# NR >300	60.0	69.9	71.2	71.4	71.4	71.4	71.4	71.4	71.4
# NR >150	60.5	70.5	72.0	72.2	72.2	72.2	72.2	72.2	72.2
# NR >0	60.5	70.9	72.4	72.9	72.9	72.9	72.9	72.9	72.9
TOTAL	746	875	894	899	899	899	899	899	899

TOTAL NUMBER OF OBS 1234

PCT FREQ NH <5/8 27.1

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8 OBSCD	TOTAL OBS
1.1	2.3	5.8	7.3	10.6	8.7	13.6	13.2	37.3	1310

PERIOD: (PRIMARY) 1930-1977
(OVER-ALL) 1861-1977

OCTOBER

AREA 0035 BUENAVENTURA SW
1.8N 80.7W

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OF NON-OCCURRENCE OF
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1	
	NO PCP	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.1	
	TOT %	.0	.1	.0	.0	.0	.1	.0	.0	.0	.0	.1	
1/2<1	PCP	.0	.1	.0	.0	.0	.0	.0	.1	.0	.0	.1	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.1	.0	.0	.0	.0	.0	.1	.0	.0	.1	
1<2	PCP	.0	.0	.1	.0	*	*	.1	.1	.0	.1	.4	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.1	.0	*	*	.1	.1	.0	.1	.4	
2<5	PCP	.1	.0	*	.1	.1	.5	.2	.1	.0	.0	1.0	
	NO PCP	.0	.0	.0	.0	.1	.2	.2	.0	.0	.0	.6	
	TOT %	.1	.0	*	.1	.3	.7	.3	.1	.0	.0	1.6	
5<10	PCP	*	.0	.0	.1	1.2	2.0	.8	*	.0	.0	4.1	
	NO PCP	.1	*	*	.4	4.8	7.3	2.5	.6	.0	.0	15.9	
	TOT %	.1	*	*	.5	6.0	9.3	3.3	.7	.0	.0	20.0	
10+	PCP	.0	.0	.0	.0	.4	1.4	.3	.0	.0	.0	2.1	
	NO PCP	.3	.3	.2	.8	16.0	48.1	9.1	.5	.0	.1	75.7	
	TOT %	.3	.3	.2	.8	16.4	49.5	9.5	.5	.0	.1	77.8	
TOT OBS													1541
TOT PCT		.5	.5	.4	1.4	22.7	59.6	13.2	1.5	.0	.2	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.1	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.1	.0	.0	.0	.1	.0	.0	.0	.0	.1	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.1	
	22+	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.1	
	TOT %	.0	.1	.0	.0	.0	.0	.0	.1	.0	.0	.1	
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.1	.0	.2	.2	
	4-10	.0	.0	.0	.0	.0	.0	.0	.1	.0	.1	.1	
	11-21	.0	.0	.1	.0	*	.1	.1	.0	.0	.0	.3	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.1	.0	*	.1	.1	.1	.0	.2	.5	
2<5	0-3	.0	.0	.0	.1	.0	.0	.1	.0	.0	.0	.1	
	4-10	.1	.0	*	*	.1	.5	.2	.0	.0	.0	.9	
	11-21	.0	.0	.0	.0	.2	.4	.1	.0	.0	.0	.6	
	22+	.0	.0	.0	.0	.0	.1	.0	.1	.0	.0	.1	
	TOT %	.1	.0	*	.1	.3	1.0	.4	.1	.0	.0	1.9	
5<10	0-3	.0	.0	.0	*	.2	.2	.2	.1	.0	.1	.8	
	4-10	.1	*	*	.3	2.9	4.5	1.6	.5	.0	.0	9.9	
	11-21	.0	.0	.1	.1	2.0	5.1	1.4	.1	.0	.0	8.6	
	22+	.0	.0	.0	.0	.1	.1	.0	.0	.0	.0	.1	
	TOT %	.1	*	*	.4	5.1	9.9	3.2	.6	.0	.1	19.5	
10+	0-3	.1	*	.1	.1	.3	.4	.1	.1	.0	.2	1.2	
	4-10	.2	.1	.1	.4	6.9	21.0	6.3	.5	.0	.0	35.4	
	11-21	.1	.2	.1	.3	8.4	28.0	3.6	.1	.0	.0	40.7	
	22+	.0	.0	.0	*	.1	.4	.1	.0	.0	.0	.6	
	TOT %	.3	.3	.2	.8	15.6	49.8	10.1	.7	.0	.2	77.9	
TOT OBS													1850
TOT PCT		.5	.4	.3	1.2	21.1	60.7	13.8	1.5	.0	.4	100.0	

OCTOBER

PERIOD: (PRIMARY) 1930-1977
(OVER-ALL) 1801-1977AREA 0035 BUENAVENTURA SH
1.8N 80.7W

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NH $\geq 4/8$) AND
OCCURRENCE OF NH $\leq 5/8$ BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH $\leq 5/8$ ANY HGT	TOTAL OBS
00003	.9	.6	3.5	16.4	34.0	9.7	3.5	2.2	.3	.3	71.4	28.6	318
06009	.3	.3	2.9	22.6	31.0	13.2	2.3	.6	.3	.0	73.5	26.5	310
12015	.6	.9	5.8	20.8	32.5	12.3	3.8	.9	.0	.0	77.5	22.5	342
18021	.7	1.4	3.4	15.5	28.6	8.6	3.8	1.0	.0	.7	63.8	36.2	290
TOT PCT	8 .6	10 .8	50 4.0	238 18.9	398 31.6	139 11.0	42 3.3	15 1.2	2 .2	3 .2	905 71.8	355 28.2	1260 100.0

TABLE 11

PERCENT FREQUENCY VSBY (NH) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.0	.0	.7	.9	17.2	81.2	436
06009	.0	.4	.0	1.2	26.1	72.3	505
12015	.0	.0	.2	3.6	15.7	80.5	440
18021	.4	.0	1.3	2.1	17.8	78.5	478
TOT PCT	2 .1	2 .1	10 .5	36 1.9	361 19.4	1448 77.9	1859 100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NH) AND/OR
CEILING HGT (FEET, NH $\geq 4/8$), BY HOUR

HOUR (GMT)	<150 430YD	<600 1/2	<1000 1/2	1000+ AND 5+	NH $\leq 5/8$ AND 5+	TOTAL OBS
00003	1.0	5.1	21.8	50.0	28.2	312
06009	.3	4.0	27.4	48.2	24.4	303
12015	.6	7.4	30.1	48.8	21.1	336
18021	.7	5.7	21.6	43.8	34.6	283
TOT PCT	8 .6	69 5.6	313 25.4	590 47.8	331 26.8	1234 100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
95/99	.0	.0	.1	.0	.0	.0	.0	.0	1	.1
90/94	.0	.0	.0	.1	.0	.1	.0	.0	2	.1
85/89	.0	.0	.0	.0	.3	1.0	.1	.0	19	1.3
80/84	.0	.0	.0	.1	.5	5.8	4.4	1.0	173	11.8
75/79	.0	.0	.1	.0	.8	12.8	37.9	13.7	954	65.3
70/74	.0	.0	.0	.0	.1	2.1	11.0	6.6	289	19.8
65/69	.0	.0	.0	.0	.0	.2	1.0	.6	24	1.6
TOTAL PCT	0 .0	0 .0	2 .1	2 .1	25 1.7	320 21.9	790 54.4	317 21.7	1462	100.0

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
95/99	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0
90/94	.0	.0	.1	.0	.1	.0	.0	.0	.0	.0
85/89	.0	.1	.0	.1	.2	.8	.1	.0	.0	.0
80/84	.0	.1	.2	.1	2.6	6.7	1.8	.3	.0	.0
75/79	.3	.1	.1	.6	13.8	40.7	8.8	.8	.0	.1
70/74	.1	.0	.2	.5	6.9	10.9	1.1	.2	.0	.0
65/69	.0	.0	.0	.2	.9	.4	.1	.0	.0	.0
TOTAL PCT	.4	.3	.5	1.5	24.4	59.5	12.0	1.3	.0	.1

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	97	82	81	77	72	68	64	76.9	549
06009	83	81	79	76	72	68	66	76.0	660
12015	84	82	80	76	71	68	66	76.0	553
18021	92	86	84	78	73	70	65	78.4	679
TOT	97	85	82	77	72	69	64	76.9	2441

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-39	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	.3	.0	20.9	58.7	20.1	84	358
06009	.0	.0	.5	13.0	59.2	27.3	86	377
12015	.0	.3	.8	15.3	59.0	24.6	85	378
18021	.0	.6	5.9	39.1	39.7	14.8	81	358
TOT	0	4	26	322	798	321	84	1471

PERIOD: (PRIMARY) 1930-1977
(OVER-ALL) 1861-1977

OCTOBER

AREA 0035 BUENAVENTURA SW
1.8N 80.7W

TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	61 64	65 68	69 72	73 76	77 80	81 84	85 88	89 92	>92	TOT	W FOG	WD FOG
17/19	.0	.0	.0	.0	.0	.0	.0	.0	.1	1	.0	.1
14/16	.0	.0	.0	.0	.1	.0	.0	.0	.0	1	.0	.1
11/13	.0	.0	.0	.0	.1	.0	.0	.0	.0	1	.0	.1
9/10	.0	.0	.0	.1	.2	.1	.1	.0	.0	7	.0	.5
7/8	.0	.0	.0	.5	.3	.1	.1	.1	.0	19	.0	1.3
6	.0	.0	.1	.0	.2	.0	.1	.0	.0	6	.0	.4
5	.0	.0	.0	.1	.2	.1	.2	.0	.0	10	.1	.6
4	.0	.0	.1	.0	.5	.3	.5	.0	.0	20	.0	1.4
3	.0	.0	.0	.2	.3	.8	.1	.0	.0	21	.0	1.4
2	.1	.0	.1	.2	.9	1.4	.0	.0	.0	39	.1	2.6
1	.0	.1	.0	.3	1.9	1.1	.0	.0	.0	49	.1	3.3
0	.0	.1	.1	1.5	5.8	.7	.0	.0	.0	119	.0	8.2
-1	.0	.1	.1	2.8	9.5	.7	.0	.0	.0	191	.1	13.0
-2	.0	.1	.3	5.4	11.9	.3	.0	.0	.0	263	.1	18.0
-3	.0	.1	.8	7.8	8.2	.6	.0	.0	.0	255	.1	17.4
-4	.0	.0	1.2	7.0	3.5	.1	.0	.0	.0	172	.1	11.7
-5	.0	.0	1.4	6.0	2.3	.1	.0	.0	.0	143	.0	9.8
-6	.0	.0	1.0	2.7	1.0	.0	.0	.0	.0	70	.0	4.8
-7/-8	.0	.2	.7	2.1	.6	.1	.0	.0	.0	54	.0	3.7
-9/-10	.0	.0	.4	.3	.0	.0	.0	.0	.0	11	.0	.8
-11/-13	.0	.0	.1	.1	.0	.0	.0	.0	.0	3	.0	.2
-14/-16	.0	.0	.1	.0	.0	.0	.0	.0	.0	1	.0	.1
-17/-19	.0	.0	.1	.0	.0	.0	.0	.0	.0	1	.0	.1
TOTAL	1	9	96	545	691	95	17	2	1	1457	8	1449
PCT	.1	.6	6.6	37.4	47.5	6.5	1.2	.1	.1	100.0	.5	99.5

PERIOD: (OVER-ALL) 1963-1977

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.2	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.2	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.1	.0	.0	.0	.0	.1	.0	.2	.3	.0	.0	.0	.5
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.2	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.6	.0	.0	.0	.0	.6	.0	.2	.5	.0	.0	.0	.6

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.2	.0	.0	.0	.0	.0	.2	.2	.0	.0	.0	.0	.0	.2
1-2	.0	.1	.0	.0	.0	.0	.1	.0	.4	.2	.0	.0	.0	.5
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.2
5-6	.0	.0	.7	.0	.0	.0	.2	.0	.5	.0	.0	.0	.0	.5
7	.0	.0	.2	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.2	.1	.3	.0	.0	.0	.6	.2	.4	.8	.0	.0	.0	1.3

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NAVAL WEATHER SERVICE DETACHMENT ASHEVILLE N C
SUMMARY OF SYNOPTIC METEOROLOGICAL OBSERVATIONS (SSMO) SOUTH AM--ETC(U)
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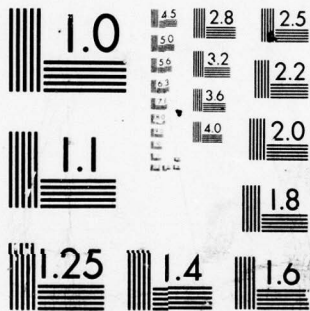
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MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963-A

PERIOD: (OVER-ALL) 1963-1977

OCTOBER

AREA 0035 BUENAVENTURA SW
1.8N 80.7W

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.3	.0	.0	.0	.0	.3	.2	1.0	.2	.0	.0	.0	1.3
1-2	.3	4.6	2.4	.0	.0	.0	7.3	.2	10.7	7.2	.0	.0	.0	18.1
3-4	.0	5.1	5.5	.0	.0	.0	10.5	.2	11.9	15.5	.0	.0	.0	27.6
5-6	.0	.9	1.9	.0	.0	.0	2.8	.0	1.6	10.7	.9	.0	.0	13.2
7	.0	.1	1.0	.0	.0	.0	1.1	.0	.0	3.0	.2	.0	.0	3.2
8-9	.0	.0	.3	.0	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.3	11.0	11.0	.0	.0	.0	22.4	.5	25.2	36.8	1.1	.0	.0	63.6

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	.4	.0	.0	.0	.0	.4	.0	.2	.0	.0	.0	.0	.2	
1-2	.0	4.5	1.9	.0	.0	.0	6.4	.0	.4	.0	.0	.0	.0	.4	
3-4	.0	1.2	1.1	.0	.0	.0	2.3	.0	.0	.2	.0	.0	.0	.2	
5-6	.0	.3	.3	.0	.0	.0	.6	.0	.0	.0	.0	.0	.0	.0	
7	.0	.0	.2	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.0	6.4	3.5	.0	.0	.0	9.9	.0	.6	.2	.0	.0	.0	.7	99.7

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	.8	2.0	.2	.0	.0	.0	2.9	
1-2	.5	20.9	11.8	.0	.0	.0	33.2	
3-4	.2	18.5	22.6	.0	.0	.0	41.3	
5-6	.0	2.8	13.5	.9	.0	.0	17.1	
7	.0	.2	4.4	.2	.0	.0	4.7	
8-9	.0	.0	.6	.0	.0	.0	.6	
10-11	.0	.0	.0	.0	.0	.0	.0	
12	.0	.2	.0	.0	.0	.0	.2	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	1.4	44.5	53.1	1.1	.0	.0	100.0	654

PERIOD: (OVER-ALL) 1949-1977

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT	
<6	1.5	13.7	26.6	10.0	2.6	.5	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	607	3
6-7	.0	1.0	8.9	10.8	4.2	1.1	.2	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	290	5
8-9	.0	.0	1.7	2.6	1.3	.5	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	69	5
10-11	.0	.5	.6	.7	.5	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	28	4
12-13	.0	.0	.7	.6	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	16	4
>13	.0	.0	.0	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	4	5
INDET	.5	1.1	3.1	1.5	1.2	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	83	4
TOTAL	23	179	458	293	108	28	5	2	1	0	0	0	0	0	0	0	0	0	0	0	1097	4
PCT	2.1	16.3	41.8	26.7	9.8	2.6	.5	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	

PERIOD: (PRIMARY) 1931-1977
(OVER-ALL) 1861-1977

NOVEMBER

AREA 0035 BUENAVENTURA SW
1.8N 80.8W

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

PRECIPITATION TYPE										OTHER WEATHER PHENOMENA					
WND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
N	13.3	10.0	13.3	.0	.0	.0	.0	36.7	.0	.0	.0	.0	.0	.0	63.3
NE	.0	5.3	.0	.0	.0	.0	.0	5.3	21.1	21.1	.0	.0	.0	.0	52.6
E	16.0	.0	.0	.0	.0	.0	.0	16.0	.0	.0	.0	.0	.0	.0	84.0
SE	10.1	.0	6.3	.0	.0	.0	.0	11.4	1.3	.0	5.1	.0	.0	.0	82.3
S	2.5	2.8	3.4	.0	.0	.0	.0	8.7	3.4	.3	4.0	.0	.4	.0	83.3
SW	4.0	2.1	2.3	.0	.0	.0	.0	8.0	3.2	.2	.8	.0	.7	.0	87.0
W	5.8	2.9	1.2	.0	.0	.0	.0	9.9	5.1	.0	.9	.0	.7	.0	83.4
NW	6.0	6.0	6.0	.0	.0	.0	.0	17.9	.0	.0	3.0	.0	.0	.0	79.1
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	11.1	.0	.0	.0	.0	.0	.0	11.1	22.2	.0	.0	.0	.0	.0	66.7
TOT PCT	4.0	2.4	2.6	.0	.0	.0	.0	8.7	3.5	.3	1.7	.0	.6	.0	85.2
TOT OBS:	1470														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
0000	3.6	1.9	1.9	.0	.0	.0	.0	7.1	3.3	.0	1.9	.0	.0	.0	87.7
0600	4.9	3.4	3.6	.0	.0	.0	.0	11.7	4.7	.8	2.8	.0	.8	.0	79.3
1200	4.2	2.1	4.2	.0	.0	.0	.0	9.9	4.5	.3	.9	.0	.6	.0	83.8
1800	3.3	2.3	1.0	.0	.0	.0	.0	6.6	1.8	.0	1.5	.0	1.0	.0	89.1
TOT PCT	4.0	2.4	2.6	.0	.0	.0	.0	8.8	3.9	.3	1.8	.0	.6	.0	85.0
TOT OBS:	1481														

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)						48+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	48+					00	03	06	09	12	15	18	21
N	.2	.4	.3	.0	.0	.0			.9	8.7	.5	2.9	.8	1.7	.9	2.4	.8	2.0
NE	.2	.2	.2	.1	.0	.0			.6	13.6	.5	.0	.5	1.3	.2	.0	.5	1.6
E	.2	.3	.2	.0	.0	.0			.4	8.8	.2	5.9	.2	.0	.2	.0	.8	.4
SE	.0	.8	.5	.0	.0	.0			1.3	9.1	.9	2.9	1.6	.0	1.8	6.5	1.3	.0
S	.5	12.7	12.3	.2	.0	.0			25.7	11.1	19.2	44.9	23.4	24.4	28.3	30.3	31.3	19.4
SW	1.1	28.3	29.1	.3	.0	.0			58.8	11.1	61.6	35.3	59.1	55.1	59.2	49.2	57.8	62.5
W	.5	6.8	2.9	.1	.0	.0			10.3	9.2	14.1	8.1	12.2	13.3	7.8	4.8	6.6	12.3
NW	.2	.7	.4	.0	.0	.0			1.2	9.9	2.4	.0	.7	2.7	1.0	.8	.7	.2
VAR	.0	.0	.0	.0	.0	.0			.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.8	.0	.0	.0	.0	.0			.8	.0	.6	.0	1.5	1.5	.5	.0	.2	1.6
TOT OBS	58	1094	1002	16	0	0	2180		10.7		463	34	460	132	415	31	521	124
TOT PCT	3.1	50.2	46.0	.7	.0	.0		100.0			100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)				41+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)			
	0-6	7-16	17-27	28-40					00	06	12	18
N	.3	.5	.1	.0	.0		.9	8.7	.7	1.0	1.0	1.0
NE	.1	.2	.3	.0	.0		.6	13.6	.5	.7	.2	.7
E	.2	.3	.0	.0	.0		.4	8.8	.2	.2	.2	.7
SE	.5	.8	.0	.0	.0		1.3	9.1	1.0	1.3	2.1	1.0
S	3.6	19.0	3.1	.0	.0		25.7	11.1	20.9	23.6	28.9	29.0
SW	7.6	45.9	5.2	.0	.0		58.8	11.1	59.8	58.2	58.5	58.7
W	3.0	6.7	.5	.0	.0		13.7	9.2	13.7	12.4	7.6	7.7
NW	.5	.6	.2	.0	.0		1.2	9.0	2.2	1.1	1.0	.6
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0
CALM	.8	.0	.0	.0	.0		.8	.0	.6	1.3	.4	.5
TOT OBS	361	1813	205	1	0	2180	10.7		497	592	446	645
TOT PCT	16.6	74.0	9.4	.0	.0		100.0		100.0	100.0	100.0	100.0

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PERIOD: (PRIMARY) 1931-1977
(OVER-ALL) 1861-1977

AREA 0035 BUENAVENTURA SW
1.8N 80.8W

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	11-21	22-33	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
0000Z	.6	2.6	50.3	45.5	1.0	.0	.0	10.8	100.0	497
0600Z	1.5	2.9	53.7	41.0	.8	.0	.0	10.4	100.0	592
1200Z	.4	1.6	48.0	49.3	.7	.0	.0	11.1	100.0	446
1800Z	.5	2.2	48.4	48.5	.5	.0	.0	10.8	100.0	645
TOT	17	91	1094	1002	16	0	0	10.7		2180
PCT	.8	2.3	50.2	46.0	.7	.0	.0		100.0	

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	.0	.1	.2	.3		6.8
NE	.0	.1	.1	.3		6.4
E	.1	.0	.2	.1		5.9
SE	.0	.0	.6	.9		7.0
S	.9	1.4	8.8	13.9		6.9
SW	2.7	5.6	21.1	31.5		6.7
W	.5	.6	4.0	4.2		6.7
NW	.1	.2	.3	.5		6.1
VAR	.0	.0	.0	.0		4.8
CALM	.2	.1	.3	.1		4.8
TOT OBS	51	92	402	584	1129	6.7
TOT PCT	4.5	8.1	35.6	51.7	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH > 4/8)
AND OCCURRENCE OF NH < 5/8 BY WIND DIRECTION

	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH < 5/8 ANY HGT	TOTAL OBS
N	.0	.0	.2	.0	.2	.0	.0	.0	.0	.0	.2	
NE	.0	.1	.0	.1	.1	.0	.0	.0	.0	.0	.2	
E	.0	.0	.0	.1	.1	.1	.0	.0	.0	.0	.2	
SE	.0	.0	.1	.1	.6	.3	*	.1	.0	.0	.2	
S	.1	.0	1.0	4.3	9.0	3.5	1.1	.4	.4	.2	5.1	
SW	.3	.6	2.2	10.6	20.4	6.3	1.4	.5	.1	.1	18.5	
W	.1	.3	1.3	3.4	.9	.2	.1	.0	.2	.2	2.8	
NW	.0	.0	.1	.0	.4	.1	*	.0	.0	.0	.5	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.1	.0	.0	.1	.0	.0	.0	.0	.0	.4	
TOT OBS	5	10	44	186	387	126	31	12	6	5	317	1129
TOT PCT	.4	.9	3.9	16.5	34.3	11.2	2.7	1.1	.5	.4	28.1	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE
OF CEILING HEIGHT (NH > 4/8) AND VSBY (NH)

CEILING (FEET)	= OR >10	= OR >5	= OR >2	VSBY (NH) = OR >1	= OR >1/2	= OR >1/4	= OR >50YD	= OR >0
= OR >6500	.9	.9	1.0	1.0	1.0	1.0	1.0	1.0
= OR >5000	1.7	1.9	2.0	2.0	2.0	2.0	2.0	2.0
= OR >3500	4.1	4.7	4.8	4.8	4.8	4.8	4.8	4.8
= OR >2000	12.6	15.8	16.0	16.1	16.1	16.1	16.1	16.1
= OR >1000	41.2	49.7	50.3	50.4	50.4	50.4	50.4	50.4
= OR >600	53.6	65.4	66.3	66.6	66.6	66.6	66.6	66.6
= OR >300	56.2	68.9	70.1	70.5	70.5	70.5	70.5	70.5
= OR >150	56.8	69.8	71.0	71.4	71.4	71.4	71.4	71.4
= OR >0	57.0	70.2	71.4	71.9	71.9	71.9	71.9	71.9
TOTAL	644	793	807	812	812	812	812	812

TOTAL NUMBER OF OBS: 1130

PCT FREQ NH < 5/8: 28.1

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8 OBSCD	TOTAL OBS
1.4	4.3	6.3	7.9	8.0	7.7	12.8	13.8	37.7	1218

PERIOD: (PRIMARY) 1931-1977
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AREA 0035 BUENAVENTURA SW
1.8N 80.8W

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1/2<1	PCP	.0	.0	.0	.0	*	*	.0	.0	.0	.0	.1	
	NO PCP	.0	.0	.0	.0	*	*	.0	.0	.0	.0	.1	
	TOT %	.0	.0	.0	.0	.1	.1	.0	.0	.0	.0	.1	
1<2	PCP	.0	.0	.0	.0	.0	.3	.1	.0	.0	.0	.3	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.3	.1	.0	.0	.0	.3	
2<5	PCP	.0	.0	.0	.1	.1	.3	.1	.0	.0	.1	.7	
	NO PCP	.0	.0	.1	.0	.1	.4	.1	.0	.0	.0	.6	
	TOT %	.0	.0	.1	.1	.2	.7	.2	.0	.0	.1	1.3	
5<10	PCP	.1	.0	.0	.1	.9	2.7	.5	.1	.0	.0	4.4	
	NO PCP	.1	.2	.2	.2	5.3	11.4	2.1	.2	.0	.0	19.8	
	TOT %	.1	.2	.2	.3	6.2	14.2	2.6	.3	.0	.0	24.1	
10+	PCP	.1	*	.1	.0	.9	1.5	.2	.1	.0	.0	3.0	
	NO PCP	.2	.1	.1	1.0	17.8	49.8	6.9	.7	.0	.5	71.1	
	TOT %	.3	.1	.2	1.0	18.7	49.3	7.1	.8	.0	.5	74.1	
TOT OBS													1458
TOT PCT		.5	.3	.4	1.4	25.2	60.6	9.9	1.1	.0	.6	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1	
1/2<1	0-3	.0	.0	.0	.0	*	*	.0	.0	.0	.0	.1	
	4-10	.0	.0	.0	.0	*	*	.0	.0	.0	.0	.1	
	11-21	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.1	.2	.0	.0	.0	.0	.2	
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.2	*	.0	.0	.0	.2	
	11-21	.0	.0	.0	.0	.0	.2	.2	.0	.0	.0	.5	
	22+	.0	.0	.0	.0	.0	*	*	.0	.0	.0	.1	
	TOT %	.0	.0	.0	.0	*	.4	.3	.0	.0	.0	.7	
2<5	0-3	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1	.2	
	4-10	.1	*	.1	.0	.1	.4	.2	.0	.0	.0	.9	
	11-21	.0	.0	.0	.1	.2	.5	.0	.0	.0	.0	.8	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.1	*	.1	.1	.4	.9	.2	.0	.0	.1	1.9	
5<10	0-3	.1	*	*	.0	.1	.3	.1	.0	.0	.0	.7	
	4-10	.1	.0	.1	.2	3.0	6.5	1.8	*	.0	.0	11.7	
	11-21	.0	.1	.1	.1	2.8	7.4	.7	.2	.0	.0	11.2	
	22+	.0	.1	.0	.0	.0	.2	.1	.0	.0	.0	.4	
	TOT %	.2	.2	.1	.3	5.9	14.5	2.6	.3	.0	.0	24.1	
10+	0-3	.0	.0	.0	.0	.3	.6	.5	.1	.0	.6	2.0	
	4-10	.3	.1	.0	.5	7.6	21.6	4.5	.4	.0	.0	35.0	
	11-21	.2	.1	.2	.3	9.0	23.2	2.3	.3	.0	.0	35.5	
	22+	.0	.0	.0	*	.2	.2	*	.0	.0	.0	.5	
	TOT %	.5	.2	.2	.8	17.1	45.6	7.3	.8	.0	.6	73.0	
TOT OBS													1744
TOT PCT		.8	.5	.4	1.1	23.5	61.6	10.4	1.0	.0	.7	100.0	

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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NH >4/8) AND
OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00003	.0	1.0	4.7	14.7	34.3	12.3	1.7	1.0	.3	.7	70.7	29.3	300
06009	1.5	.4	3.4	17.5	31.7	9.0	3.7	1.1	.7	.4	69.4	30.6	268
12015	.0	1.8	5.1	19.5	36.1	12.3	1.8	.4	.4	.4	77.6	22.4	277
18021	.3	.3	2.3	13.2	32.6	10.6	3.5	1.6	.6	.3	65.5	34.5	310
TOT	5	10	44	186	389	128	51	12	6	5	816	339	1155
PCT	.4	.9	3.8	16.1	33.7	11.1	2.7	1.0	.5	.4	70.6	29.4	100.0

TABLE 11

PERCENT FREQUENCY VS BY (NH) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.2	.5	.7	1.4	20.9	76.3	417
06009	.0	.2	.2	1.9	28.5	69.1	473
12015	.0	.3	1.3	2.1	24.9	71.4	377
18021	.0	.0	.8	2.0	22.3	74.8	488
TOT	1	4	13	33	425	1279	1755
PCT	.1	.2	.7	1.9	24.2	72.9	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VS BY (NH) AND/OR
CEILING HGT (FEET, NH >4/8), BY HOUR

HOUR (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND 5+	NH <5/8 AND 5+	TOTAL OBS
00003	.0	5.8	21.0	50.5	28.5	295
06009	1.5	5.3	23.6	47.1	29.3	263
12015	.0	6.9	27.7	50.7	21.5	274
18021	.3	3.0	16.8	50.3	32.9	298
TOT	5	59	250	562	318	1130
PCT	.4	5.2	22.1	49.7	28.1	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
90/94	.0	.0	.0	.1	.1	.0	.0	.0	2	.2
85/89	.0	.0	.0	.0	.5	.2	.1	.1	13	1.0
80/84	.0	.0	.0	.0	.7	5.5	3.5	.8	139	10.5
75/79	.0	.0	.0	.0	.5	15.2	41.3	12.3	918	69.3
70/74	.0	.0	.0	.0	.1	2.0	12.2	3.8	240	18.1
65/69	.0	.0	.0	.0	.0	.0	.7	.3	13	1.0
TOTAL	0	0	0	1	25	304	765	230	1325	100.0
PCT	.0	.0	.0	.1	1.9	22.9	57.7	17.4		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
90/94	.0	.0	.0	.0	.1	.1	.0	.0	.0	.0
85/89	.0	.0	.0	.0	.3	.5	.1	.0	.0	.1
80/84	.1	.2	.2	.2	2.1	5.8	1.7	.2	.0	.1
75/79	.2	.0	.1	.7	17.1	43.0	7.2	.6	.0	.4
70/74	.0	.0	.2	.7	7.2	9.2	.8	.1	.0	.0
65/69	.0	.0	.0	.1	.6	.3	.0	.0	.0	.0
TOTAL	.3	.3	.4	1.7	27.3	59.0	9.7	.9	.0	.0

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	83	82	81	77	72	70	68	76.7	505
06009	83	81	79	76	72	69	68	75.8	593
12015	87	81	80	76	72	69	66	75.9	447
18021	93	86	84	78	73	69	66	78.4	636
TOT	93	84	82	77	72	69	66	76.8	2181

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-39	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	.0	.6	20.0	63.6	15.8	84	330
06009	.0	.0	.3	13.3	64.4	22.0	85	334
12015	.0	.0	1.0	14.6	62.6	21.9	85	302
18021	.0	.3	5.7	42.6	41.7	9.7	80	350
TOT	0	1	26	306	773	230	84	1336

NOVEMBER

PERIOD: (PRIMARY) 1931-1977
(OVER-ALL) 1861-1977

AREA 0035 BUENAVENTURA SW
1.8N 80.8W

TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	65 68	69 72	73 76	77 80	81 84	85 88	89 92	>92	TOT	W FOG	WD FOG
14/16	.0	.0	.0	.1	.0	.0	.3	.0	5	.0	.4
11/13	.0	.0	.1	.2	.1	.1	.1	.1	8	.0	.6
9/10	.0	.0	.2	.2	.1	.1	.1	.0	9	.0	.7
7/8	.0	.1	.5	.1	.2	.2	.1	.0	16	.0	1.2
5	.0	.1	.1	.1	.0	.2	.0	.0	7	.0	.5
4	.0	.0	.2	.3	.3	.1	.0	.0	12	.0	.9
3	.0	.1	.1	.4	.1	.1	.0	.0	11	.0	.8
2	.0	.1	.1	.9	.6	.1	.0	.0	24	.0	1.8
1	.1	.1	.4	1.3	1.7	.0	.0	.0	48	.1	3.5
0	.0	.0	.7	1.9	.7	.0	.0	.0	43	.1	3.1
-1	.1	.3	1.6	5.8	.9	.0	.0	.0	113	.2	8.2
-2	.1	.3	4.0	9.6	.9	.0	.0	.0	199	.7	14.2
-3	.1	.6	8.2	11.5	.1	.0	.0	.0	275	.1	20.4
-4	.0	1.0	8.8	7.2	.1	.0	.0	.0	230	.4	16.8
-5	.1	1.1	7.2	3.1	.1	.0	.0	.0	156	.1	11.5
-6	.1	.9	3.3	1.6	.0	.0	.0	.0	78	.2	5.6
-7	.1	.7	2.1	.4	.1	.0	.0	.0	46	.1	3.4
-7/-8	.1	.7	1.6	.7	.1	.0	.0	.0	42	.0	3.1
-9/-10	.1	.3	.1	.2	.0	.0	.0	.0	9	.0	.7
-11/-13	.1	.1	.2	.0	.0	.0	.0	.0	6	.0	.4
-14/-16	.0	.0	.1	.0	.0	.0	.0	.0	1	.0	.1
TOTAL	10		532		82		7		1338	2.0	98.0
PCT	.7	6.4	49.8	65.6	6.1	.8	.5	.1	100.0	2.0	98.0

PERIOD: (OVER-ALL) 1963-1977

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.2	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.2	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.2	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.2
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.2
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0
TOT PCT	.0	.5	.0	.0	.0	.0	.5	.0	.0	.2	.2	.0	.0	.3

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.2	.0	.0	.0	.0	.3	.0	.3	.0	.0	.0	.0	.5
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.4	.0	.0	.0	.0	.4
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.2	.2	.0	.0	.0	.4
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.2	.2	.0	.0	.0	.3	.0	1.0	.2	.0	.0	.0	1.3

PERIOD: (OVER-ALL) 1963-1977

NOVEMBER

AREA 0035 BUENAVENTURA SW
1.8N 80.8W

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.1	.2	.0	.0	.0	.0	.4	.1	.0	.0	.0	.0	.0	.1	.3
1-2	.2	5.2	2.1	.0	.0	.0	7.5	.2	10.8	7.0	.0	.0	.0	17.9	.7
3-4	.0	3.1	6.9	.0	.0	.0	10.1	.2	12.1	19.5	.0	.0	.0	31.7	.2
5-6	.0	.8	2.1	.4	.0	.0	3.3	.2	2.1	7.9	.4	.0	.0	10.4	.2
7	.0	.0	.8	.1	.0	.0	1.0	.0	.0	1.6	.2	.0	.0	1.8	.0
8-9	.0	.0	.1	.2	.0	.0	.3	.0	.0	.8	.3	.0	.0	1.2	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.2	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.3	9.4	12.1	.7	.0	.0	22.5	.6	25.9	36.9	.9	.0	.0	64.3	

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.3	.4	.0	.0	.0	.0	.7	.2	.2	.0	.0	.0	.0	.3	.3
1-2	.1	3.9	.0	.0	.0	.0	4.0	.0	.2	.5	.0	.0	.0	.7	.2
3-4	.0	1.7	1.3	.0	.0	.0	3.0	.0	.0	.2	.0	.0	.0	.2	.2
5-6	.0	.5	.6	.0	.0	.0	1.1	.0	.0	.2	.0	.0	.0	.2	.0
7	.0	.1	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.4	6.6	1.9	.0	.0	.0	9.0	.2	.4	.8	.0	.0	.0	1.4	99.5

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	1.1	1.9	.0	.0	.0	.0	3.1	
1-2	.5	21.0	9.7	.0	.0	.0	31.1	
3-4	.2	17.4	27.9	.0	.0	.0	45.5	
5-6	.2	3.5	11.1	.8	.0	.0	15.6	
7	.0	.2	2.4	.3	.0	.0	2.9	
8-9	.0	.0	1.0	.6	.0	.0	1.6	
10-11	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.2	.0	.0	.0	.2	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	1.9	44.0	52.3	1.8	.0	.0	100.0	620

PERIOD: (OVER-ALL) 1949-1977

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	1.6	16.0	27.7	11.5	1.5	.7	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	593	3
6-7	.0	.8	8.7	11.5	3.4	1.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	257	5
8-9	.0	.4	1.5	3.4	1.3	.4	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	71	5
10-11	.0	.1	.6	.5	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	17	5
12-13	.0	.0	.5	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	7	4
>13	.0	.0	.0	.3	.4	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	8	8
INDEX	.5	.9	1.9	1.2	.5	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	51	4
TOTAL	2.1	18.3	41.0	28.5	7.7	2.4	.2	.1	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	1004	4
PCT	2.1	18.2	40.8	28.4	7.7	2.4	.2	.1	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	100.0	

PERIOD: (PRIMARY) 1925-1977
(OVER-ALL) 1868-1977

DECEMBER

AREA 0035 BUENAVENTURA SW
1.8N 80.8W

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

PRECIPITATION TYPE										OTHER WEATHER PHENOMENA					
WIND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THOR LTNG	FGG WQ PCPN	FGG WQ PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST SNOW	ND SIG WEA
N	16.2	11.4	10.5	.0	.0	.0	.0	34.3	7.6	3.8	.0	.0	.0	.0	54.3
NE	13.0	29.6	1.9	.0	.0	.0	.0	44.4	.0	.0	.0	.0	.0	.0	55.6
E	36.8	21.1	57.9	.0	.0	.0	.0	78.9	.0	.0	.0	.0	.0	.0	21.1
SE	15.4	4.4	4.4	.0	.0	.0	.0	23.5	.0	.0	7.4	.0	.0	2.9	66.2
S	4.7	3.1	2.6	.0	.0	.0	.0	10.1	3.5	.3	.4	.0	.0	.0	85.7
SW	5.3	2.1	2.9	.0	.0	.0	.0	10.3	3.0	.1	.4	.0	.0	.1	86.1
W	6.7	.7	2.1	.0	.0	.0	.0	8.9	4.8	.0	.0	.0	.0	.0	86.3
NW	12.1	6.9	.0	.0	.0	.0	.0	19.0	8.6	.0	.0	.0	.0	.0	72.4
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	7.1	.0	.0	.0	.0	7.1	14.3	7.1	.0	.0	.0	.0	71.4
TOT PCT	5.9	2.9	3.1	.0	.0	.0	.0	11.5	3.5	.3	.5	.0	.0	.1	84.1
TOT OBS:	1403														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA								
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OBS TIME	PCPN PAST HOUR	THOR LTNG	FGG WQ PCPN	FGG WQ PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	ND SIG WEA
00603	7.0	2.0	3.2	.0	.0	.0	.0	11.9	4.1	.3	.3	.0	.0	.0	.0	83.4
06609	4.6	4.0	4.6	.0	.0	.0	.0	12.9	4.3	.6	.3	.0	.0	.0	.0	81.9
12615	6.6	2.9	2.0	.0	.0	.0	.0	11.6	4.6	.3	.3	.0	.0	.6	.0	82.7
18621	6.0	2.9	2.9	.0	.0	.0	.0	11.0	1.0	.0	1.0	.0	.0	.0	.0	86.9
TOT PCT	6.0	3.0	3.2	.0	.0	.0	.0	11.8	3.4	.3	.5	.0	.0	.1	.0	83.8
TOT OBS:	1422															

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							48+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)						
	0-3	4-10	11-21	22-33	34-47	00	03					06	09	12	15	18	21	
N	.1	.9	.4	*	.0	.0		1.5	9.5		1.7	3.6	1.1	.6	1.1	.0	2.1	2.7
NE	.1	.3	.2	.0	.0	.0		.7	8.1		.9	1.2	.6	.0	.8	1.6	.7	.0
E	*	.3	*	.0	.0	.0		.4	7.9		.5	.0	1.1	.0	.1	.0	.1	.0
SE	.1	1.6	.4	.0	.0	.0		2.2	7.9		2.5	3.2	2.2	2.5	3.0	1.2	1.6	.7
S	.9	14.2	12.6	.4	.0	.0		28.1	10.8		21.8	33.7	26.5	27.6	27.6	47.7	31.6	29.3
SW	1.4	28.0	25.2	.4	.0	.0		55.0	10.8		53.3	50.0	53.1	56.8	59.4	40.2	55.0	59.0
W	.3	6.3	2.9	*	.0	.0		9.5	9.6		16.0	3.6	12.6	9.1	7.1	3.1	6.3	4.9
NW	.1	1.0	.3	.1	.0	.0		1.5	9.4		2.2	4.8	.9	1.7	.3	4.7	1.4	2.1
VAR	.0	.0	.0	.0	.0	.0		.0	.0		.0	.0	.0	.0	.0	.0	.0	.0
CALM	1.2							1.2	.0		1.1	.0	1.9	1.7	.4	1.6	1.1	1.2
TOT OBS	103	1241	991	21	0	0		2356	10.4		438	63	469	173	448	64	534	167
TOT PCT	4.4	52.7	42.1	.9	.0	.0		100.0			100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	0-6	WIND SPEED (KNOTS)				41+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)			
		7-16	17-27	28-40	00 03					06 09	12 15	18 21	
N	.4	1.1	.1	.0	.0		1.5	9.5	1.9	.9	1.0	2.2	
NE	.3	.3	*	.0	.0		.7	8.1	.9	.5	.9	.5	
E	.2	.1	*	.0	.0		.4	7.9	.4	.8	.1	.1	
SE	.9	1.2	*	.0	.0		2.2	7.9	2.5	2.3	2.8	1.4	
S	4.0	21.4	2.5	.1	.0		28.1	10.8	23.3	26.8	30.1	31.1	
SW	6.3	44.9	3.6	*	.0		55.0	10.8	52.9	54.1	57.0	56.0	
W	2.0	7.1	.4	.0	.0		9.5	9.6	14.5	11.7	6.6	6.0	
NW	.6	.7	.2	.0	.0		1.5	9.4	2.5	1.1	.9	1.6	
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	
CALM	1.2						1.2	.0	1.0	1.9	.6	1.1	
TOT OBS	378	1811	163	4	0	2356		10.4	501	642	512	701	
TOT PCT	16.0	76.9	6.9	.2	.0		100.0		100.0	100.0	100.0	100.0	

DECEMBER

PERIOD: (PRIMARY) 1925-1977
(OVER-ALL) 1888-1977

AREA 0035 BUENAVENTURA SW
1.8N 80.8W

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	11-21	22-33	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
00003	1.0	2.2	55.5	40.1	1.2	.0	.0	10.3	100.0	501
06009	1.9	3.4	56.9	37.5	.3	.0	.0	10.0	100.0	642
12015	.6	3.3	50.2	44.5	1.4	.0	.0	10.9	100.0	512
18021	1.1	3.6	48.6	45.8	.9	.0	.0	10.5	100.0	701
TOT	28	75	1241	991	21	0	0	10.4		2356
PCT	1.2	3.2	52.7	42.1	.9	.0	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	.1	.1	.4	.8		6.7
NE	.2	.1	.2	.6		5.9
E	.0	.1	.1	.1		6.0
SE	.2	.3	.9	.8		5.9
S	1.3	2.4	11.3	12.8		6.6
SW	2.6	4.7	19.9	26.7		6.6
W	.8	1.4	4.9	4.4		6.3
NW	.0	.1	.2	.6		6.7
VAR	.0	.0	.0	.0		6.0
CALM	.2	.2	.3	.3		5.3
TOT OBS	56	98	397	490	1041	6.5
TOT PCT	5.4	9.4	38.1	47.1	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8)
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH <5/8 ANY HGT	TOTAL OBS
N	.0	.0	.3	.1	.2	.2	.0	.0	.0	.0	.6	
NE	.1	.0	.1	.3	.1	.0	.0	.0	.0	.0	.4	
E	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	.1	
SE	.1	.0	.0	.3	.5	.3	.1	.0	.0	.0	.7	
S	.4	.1	.7	4.1	8.2	3.1	1.1	.9	.1	.4	8.8	
SW	.1	.4	2.3	9.8	16.0	4.7	1.4	.8	.3	.1	17.8	
W	.0	.0	.7	2.2	3.0	.6	.3	.0	.0	.0	4.7	
NW	.0	.0	.0	.1	.3	.0	.0	.0	.0	.0	.4	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.0	.1	.1	.3	.1	.0	.0	.0	.0	.4	
TOT OBS	7	6	47	180	299	93	31	18	4	5	351	1041
TOT PCT	.7	.6	4.5	17.3	28.7	8.9	3.0	1.7	.4	.5	33.7	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE
OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	= OR >10	= OR >5	= OR >2	VSBY (NM) = OR >1	= OR >1/2	= OR >1/4	= OR >50YD	= OR >0
= OR >6500	.9	1.0	1.0	1.0	1.0	1.0	1.0	1.0
= OR >5000	2.5	2.8	2.8	2.8	2.8	2.8	2.8	2.8
= OR >3500	5.1	5.7	5.7	5.7	5.7	5.7	5.7	5.7
= OR >2000	13.0	14.4	14.5	14.5	14.5	14.5	14.5	14.5
= OR >1000	37.9	42.7	43.1	43.1	43.1	43.1	43.1	43.1
= OR >600	50.4	59.0	60.1	60.3	60.3	60.3	60.3	60.3
= OR >300	53.1	62.9	64.5	64.9	64.9	64.9	64.9	64.9
= OR >150	53.3	63.4	64.9	65.4	65.5	65.5	65.5	65.5
= OR >0	53.6	63.8	65.5	66.1	66.2	66.2	66.2	66.2
TOTAL	561	668	686	692	693	693	693	693

TOTAL NUMBER OF OBS: 1047

PCT FREQ NH <5/8: 33.8

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	OBSCD	TOTAL OBS
2.0	4.0	8.2	10.6	8.9	10.2	11.3	13.0	31.3	.4	1121

PERIOD: (PRIMARY) 1925-1977
(OVER-ALL) 1808-1977

DECEMBER

AREA 0035 BUENAVENTURA SW
1.8N 80.8W

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.1	
	NO PCP	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1	
	TOT %	.0	.0	.0	.0	.1	.0	.0	.1	.0	.0	.1	
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1	
	TOT %	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1	
1<2	PCP	.0	.0	.0	.1	.1	.2	.1	.0	.0	.0	.4	
	NO PCP	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.1	
	TOT %	.0	.0	.0	.1	.1	.2	.1	.0	.0	.0	.4	
2<5	PCP	.1	.1	.1	.1	.1	.5	.3	.0	.0	.0	1.4	
	NO PCP	.0	.0	.0	.0	.0	.2	.3	.0	.0	.0	.5	
	TOT %	.1	.1	.1	.1	.1	.7	.6	.0	.0	.0	1.9	
5<10	PCP	.4	.3	.1	.3	1.4	3.5	.4	.1	.0	.1	6.5	
	NO PCP	.3	.1	.0	.4	5.0	9.2	1.6	.1	.0	.1	16.6	
	TOT %	.7	.4	.1	.6	6.3	12.6	2.0	.2	.0	.1	23.1	
10+	PCP	.1	*	.1	.1	1.1	1.5	.2	.0	.0	.0	3.1	
	NO PCP	1.0	.4	.1	1.4	19.4	29.9	7.6	.6	.0	.9	71.3	
	TOT %	1.1	.5	.2	1.5	20.5	31.4	7.7	.6	.0	.9	74.4	
TOT OBS													1393
TOT PCT		1.9	1.0	.3	2.4	27.1	55.0	10.4	.8	.0	1.0	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1	
	4-10	.0	.0	.0	*	*	.0	.0	.1	.0	.0	.1	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	*	.1	.0	.0	.1	.0	.0	.2	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.1	.1	.0	.0	.0	.1	
	11-21	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.1	.1	.0	.0	.0	.2	
1<2	0-3	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.1	
	4-10	.0	.0	.0	.1	.1	.2	.1	.1	.0	.0	.5	
	11-21	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.1	.1	.3	.1	.1	.0	.0	.6	
2<5	0-3	.0	.0	.0	.0	.0	.1	*	.0	.0	.0	.1	
	4-10	.2	*	.1	.1	.1	.5	.4	.0	.0	.0	1.3	
	11-21	.0	.1	.0	.0	.1	.5	.3	.0	.0	.0	.9	
	22+	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1	
	TOT %	.2	.1	.1	.1	.2	1.0	.7	.0	.0	.0	2.4	
5<10	0-3	*	.1	.0	.1	*	.2	.2	*	.0	.1	.8	
	4-10	.3	.2	.1	.3	2.3	5.5	1.1	.1	.0	.0	10.0	
	11-21	.2	.1	.0	.1	3.1	7.4	.9	.1	.0	.0	12.0	
	22+	.0	.0	.0	.0	.2	.2	.0	.0	.0	.0	.4	
	TOT %	.6	.4	.1	.5	5.7	13.4	2.2	.2	.0	.1	23.1	
10+	0-3	.1	.0	*	*	.9	.1	.0	.0	.0	.8	2.7	
	4-10	.5	.2	.1	1.0	9.8	20.4	5.4	.5	.0	.0	37.9	
	11-21	.4	.2	.1	.3	8.5	20.7	2.3	*	.0	.0	32.5	
	22+	.1	.0	.0	.0	.0	.2	*	.0	.0	.0	.3	
	TOT %	1.0	.4	.2	1.4	19.1	42.2	7.9	.5	.0	.8	73.5	
TOT OBS													1613
TOT PCT		1.8	.9	.3	2.2	25.1	57.0	11.0	.9	.0	.9	100.0	

DECEMBER

PERIOD: (PRIMARY) 1925-1977
(OVER-ALL) 1868-1977AREA 0035 BUENAVENTURA SW
1.8N 80.8W

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NM >4/8) AND
OCCURRENCE OF NM <5/8 BY HOUR

HOURL (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00003	.7	1.1	3.9	16.4	25.0	6.8	1.4	1.8	.0	.7	57.9	42.1	280
06009	.9	.4	4.0	16.7	32.2	8.4	1.2	2.6	1.3	.9	69.2	30.8	227
12015	.0	1.1	6.3	19.0	31.7	9.9	4.2	1.8	.0	.0	73.9	26.1	284
18021	1.1	.0	3.5	15.2	23.7	9.5	3.9	1.1	.7	.4	59.0	41.0	283
TOT	7	7	48	181	300	93	31	19	5	5	696	378	1074
PCT	.7	.7	4.5	16.9	27.9	8.7	2.9	1.8	.5	.5	64.8	35.2	100.0

TABLE 11

PERCENT FREQUENCY VS BY (NM) BY HOUR

HOURL (GMT)	<1/2	1/2<1	1<2	2<3	3<10	10+	TOTAL OBS
00003	.0	.3	.5	2.1	22.1	74.9	375
06009	.5	.2	.5	3.7	28.1	67.0	427
12015	.3	.5	1.3	2.4	18.3	77.2	382
18021	.0	.2	.4	1.1	23.7	74.5	447
TOT	3	5	11	38	379	1195	1631
PCT	.2	.3	.7	2.3	23.2	73.3	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VS BY (NM) AND/OR
CEILING HGT (FEET, NM >4/8), BY HOUR

HOURL (GMT)	<150 <500	<600 <1	<1000 <5	1000+ AND 5+	NH <5/8 AND 5+	TOTAL OBS
00003	.7	5.9	23.9	35.7	40.4	272
06009	.9	5.8	23.2	47.3	29.5	224
12015	.0	7.6	27.2	48.6	24.3	276
18021	1.1	4.7	20.7	40.0	39.3	275
TOT	7	63	249	447	351	1047
PCT	.7	6.0	23.8	42.7	33.5	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
90/94	.0	.0	.0	.0	.0	.1	.0	.0	1	.1
85/89	.0	.0	.0	.0	.1	.5	.1	.0	8	.6
80/84	.0	.0	.0	.0	.7	4.4	5.5	1.1	146	11.7
75/79	.0	.0	.0	.0	.4	13.1	41.5	17.5	902	72.5
70/74	.0	.0	.0	.0	.0	1.8	8.3	4.7	184	14.8
65/69	.0	.0	.0	.0	.0	.0	.2	.1	3	.2
TOTAL	0	0	0	0	15	247	690	292	1244	100.0
PCT	.0	.0	.0	.0	1.2	19.9	55.5	23.3		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.0	.0	.0	.0	.0	.1	.0	.0	.0	.0
.2	.1	.0	.0	.2	.*	.1	.0	.0	.1
.7	.5	.0	.6	3.7	4.9	1.1	.0	.0	.2
.7	.4	.5	1.7	18.2	41.5	8.1	.7	.0	.8
.0	.0	.2	.7	7.1	5.9	.6	.1	.0	.2
.0	.0	.0	.0	.2	.0	.0	.0	.0	.0
1.6	1.0	.6	3.1	29.5	52.4	9.9	.8	.0	1.2

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOURL (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	83	82	80	77	73	72	70	76.7	512
06009	84	80	79	76	73	70	66	76.0	647
12015	86	82	80	76	73	71	68	76.3	514
18021	93	85	83	78	74	73	66	78.4	692
TOT	93	84	81	77	73	71	66	76.9	2365

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOURL (GMT)	0-29	30-39	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	.0	.6	13.4	61.5	24.5	86	314
06009	.0	.0	.3	12.3	57.9	29.6	86	318
12015	.0	.0	.6	11.4	60.0	27.9	86	315
18021	.0	.0	3.0	40.4	43.8	12.8	81	329
TOT	0	0	15	250	710	301	85	1276

DECEMBER

PERIOD: (PRIMARY) 1925-1977
(OVER-ALL) 1888-1977

TABLE 17

AREA 0035 BUENAVENTURA SW
1.8N 80.8WPCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	65 68	69 72	73 76	77 80	81 84	83 88	89 92	>92	TOT	W FOG	WD OG
11/13	.0	.0	.0	.0	.1	.0	.0	.0	1	.0	.1
9/10	.0	.0	.0	.1	.0	.0	.0	.1	2	.0	.2
7/8	.0	.0	.0	.0	.2	.1	.1	.0	5	.0	.4
6	.0	.0	.1	.1	.2	.1	.0	.0	5	.0	.4
5	.0	.0	.2	.2	.3	.2	.0	.0	11	.0	.8
4	.0	.0	.1	.5	.6	.0	.0	.0	15	.0	1.2
3	.0	.0	.1	.4	.8	.1	.0	.0	17	.1	1.2
2	.0	.0	.5	1.2	1.3	.2	.0	.0	42	.0	3.2
1	.0	.0	.5	3.0	1.2	.1	.0	.0	62	.0	4.8
0	.0	.1	2.9	7.4	1.3	.0	.0	.0	152	.0	11.7
-1	.0	.2	5.1	12.6	.3	.0	.0	.0	236	.2	18.0
-2	.0	.2	11.2	11.2	.3	.0	.0	.0	299	.2	22.8
-3	.0	.5	7.6	6.5	.1	.0	.0	.0	190	.0	14.6
-4	.0	.6	5.4	3.4	.1	.0	.0	.0	123	.0	9.5
-5	.0	.3	3.5	1.8	.0	.0	.0	.0	72	.0	5.5
-6	.0	.3	1.5	.0	.0	.0	.0	.0	32	.0	2.5
-7/-8	.0	.4	1.0	.4	.2	.0	.0	.0	25	.0	1.9
-9/-10	.0	.2	.3	.1	.0	.0	.0	.0	7	.0	.5
-11/-13	.1	.0	.1	.0	.0	.0	.0	.0	2	.0	.2
TOTAL	1		521		89		1		1298	7	1291
PCT	.1	36	641	8	.6	.1	.1		100.0	.5	99.5

PERIOD: (OVER-ALL) 1963-1977

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	N							PCT	NE							PCT
	1-3	4-10	11-21	22-33	34-47	48+			1-3	4-10	11-21	22-33	34-47	48+		
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	.0	.0	.0	.0	.0	.3
1-2	.0	.6	.0	.0	.0	.0	.6	.0	.0	.4	.2	.0	.0	.0	.0	.6
3-4	.0	.6	.3	.0	.0	.0	1.0	.0	.0	.2	.2	.0	.0	.0	.0	.4
5-6	.0	.0	.2	.0	.0	.0	.2	.0	.0	.0	.2	.0	.0	.0	.0	.2
7	.0	.0	.1	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	1.2	.6	.0	.0	.0	1.9	.0	1.0	.5	.0	.0	.0	.0	.0	1.5

HGT	E							PCT	SE							PCT
	1-3	4-10	11-21	22-33	34-47	48+			1-3	4-10	11-21	22-33	34-47	48+		
<1	.1	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.8	.0	.0	.0	.0	.0	.8
3-4	.0	.2	.0	.0	.0	.0	.2	.0	.0	.3	.0	.0	.0	.0	.0	.3
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.2	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.1	.2	.2	.0	.0	.0	.5	.0	1.2	.0	.0	.0	.0	.0	.0	1.3

PERIOD: (OVER-ALL) 1963-1977

DECEMBER

AREA 0035 BUENAVENTURA SW
1.8N 80.8W

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.5	.0	.0	.0	.0	.5	.0	1.7	.2	.0	.0	.0	1.9
1-2	.6	6.6	4.4	.0	.0	.0	11.7	.4	10.7	6.6	.0	.0	.0	17.7
3-4	.0	.6	8.8	.0	.0	.0	19.4	.2	7.3	11.7	.2	.0	.0	19.4
5-6	.0	.3	2.4	.0	.0	.0	2.7	.0	4.1	6.1	.2	.0	.0	10.4
7	.0	.0	.3	.2	.0	.0	.5	.0	1.0	2.1	.0	.0	.0	3.1
8-9	.0	.0	.2	.0	.0	.0	.2	.0	.0	.0	.2	.0	.0	.2
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.6	12.0	16.2	.2	.0	.0	28.9	.6	24.9	26.7	.5	.0	.0	52.7

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	.3	.0	.0	.0	.0	.3	.0	.3	.0	.0	.0	.0	.3	
1-2	.0	3.3	.9	.0	.0	.0	4.2	.0	.5	.0	.0	.0	.0	.5	
3-4	.0	1.8	1.6	.0	.0	.0	3.4	.0	.0	.0	.0	.0	.0	.0	
5-6	.0	1.7	1.4	.0	.0	.0	3.1	.0	.0	.0	.0	.0	.0	.0	
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.0	7.0	3.9	.0	.0	.0	11.0	.0	.8	.1	.0	.0	.0	.9	98.6

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	1.7	3.2	.2	.0	.0	.0	5.1	
1-2	1.0	23.0	12.2	.0	.0	.0	36.2	
3-4	.2	15.1	22.5	.2	.0	.0	37.9	
5-6	.0	6.1	10.3	.2	.0	.0	16.6	
7	.0	1.0	2.7	.2	.0	.0	3.9	
8-9	.0	.0	.2	.2	.0	.0	.3	
10-11	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	2.9	48.4	48.1	.7	.0	.0	100.0	591

PERIOD: (OVER-ALL) 1949-1977

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	2.1	17.0	22.8	11.7	2.3	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	522	3
6-7	.0	3.1	10.0	11.8	2.1	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	236	4
8-9	.0	.9	1.5	2.4	.9	.4	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	57	5
10-11	.0	.6	.6	.2	.6	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	23	5
12-13	.0	.0	.5	.1	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	8	4
>13	.0	.0	.0	.1	.0	.1	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3	8
INDET	1.4	.8	2.1	1.4	.4	.0	.4	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	62	4
TOTAL	33	208	350	258	60	14	1	6	1	0	0	0	0	0	0	0	0	0	0	931	4
PCT	3.5	22.3	37.6	27.7	6.4	1.5	.1	.6	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	

PERIOD: (PRIMARY) 1924-1978
(OVER-ALL) 1861-1978

ANNUAL

TABLE 1

AREA 0035 BUENAVENTURA SW
1.8N 80.8W

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PAST HR	SMOKE HAZE	SPRAY BLWG SNOW	NO SIG WEA
N	8.2	5.7	6.0	.0	.0	.0	.0	19.6	3.5	4.1	.2	.0	2.8	.1	71.5
NE	4.4	4.9	3.7	.0	.0	.0	1.8	14.6	3.6	6.1	3.1	.0	.6	3.6	68.5
E	10.4	3.9	5.8	.0	.0	.0	.0	17.1	3.3	3.9	3.3	.0	1.6	.1	70.9
SE	5.5	2.5	3.4	.0	.0	.0	.0	11.7	2.7	.5	5.2	.0	.5	.2	76.2
S	3.7	2.7	2.9	.0	.0	.0	.0	9.1	3.8	.9	2.5	.0	.6	*	83.2
SW	3.5	2.1	2.5	.0	.0	.0	.0	8.0	4.3	1.1	.5	.0	.4	.1	85.6
W	4.8	2.4	2.1	.0	.0	.0	.0	9.2	4.9	1.7	.3	.0	.3	*	83.8
NW	8.1	3.6	2.6	.0	.0	.0	.0	14.3	4.9	2.8	.9	.0	.5	.0	77.0
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	4.4	1.9	5.2	.0	.0	.0	.0	11.3	5.9	4.1	.1	.0	1.0	.0	78.2
TOT PCT	3.8	2.4	2.5	.0	.0	.0	*	8.6	4.0	1.2	1.6	.0	.7	.1	84.1
TOT OBS: 18761															

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PAST HR	SMOKE HAZE	SPRAY BLWG SNOW	NO SIG WEA
00003	2.7	1.8	2.0	.0	.0	.0	*	6.4	3.1	.9	1.2	.0	.5	.1	87.8
06009	3.9	3.0	3.6	.0	.0	.0	*	10.4	3.8	3.3	2.2	.0	.6	*	80.0
12015	5.2	2.5	3.0	.0	.0	.0	.0	10.4	6.1	.5	1.1	.0	.7	.1	81.1
18021	3.8	2.5	1.7	.0	.0	.0	.0	7.7	3.0	.2	2.0	.0	.8	*	86.3
TOT PCT	3.9	2.4	2.6	.0	.0	.0	*	8.7	4.0	1.2	1.6	.0	.7	.1	83.8
TOT OBS: 19248															

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WND DIR	WIND SPEED (KNOTS)							48+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)						
	0-3	4-10	11-21	22-33	34-47	00	03					06	09	12	15	18	21	
N	.7	2.6	1.1	.1	.0	.0	4.4	7.7	5.4	4.0	4.5	4.3	3.6	3.1	4.2	5.3		
NE	.5	2.1	.9	*	*	.0	3.6	8.8	3.5	5.9	3.2	4.2	3.1	3.6	3.7	4.7		
E	.4	1.3	.2	*	*	.0	1.9	7.7	1.3	3.4	1.8	2.0	2.2	3.2	2.4	1.4		
SE	.7	2.6	.4	*	.0	.0	3.7	7.4	3.0	5.5	3.8	3.8	4.2	5.2	3.6	2.3		
S	1.4	13.9	8.5	.1	.0	.0	23.9	9.4	18.1	27.6	20.8	20.0	27.1	39.5	29.0	22.0		
SW	1.7	24.9	18.7	.3	.0	.0	45.6	9.7	46.3	39.8	45.2	45.8	47.0	36.4	45.0	47.3		
W	1.0	7.0	2.6	*	.0	.0	10.7	8.5	15.3	8.7	13.2	11.8	7.6	4.9	7.2	11.2		
NW	.6	2.0	.3	*	.0	.0	3.0	7.3	4.3	2.6	3.5	2.9	2.0	1.9	2.1	3.6		
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
CALM	3.3						3.3	.0	2.8	2.3	4.1	5.2	3.2	2.2	2.9	2.3		
TOT OBS							29783		6028	686	6018	1937	5883	669	6664	1898		
TOT PCT	10.3	56.5	32.6	.6	*	.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0		

TABLE 3A

WIND DIR	0-6	WIND SPEED (KNOTS)				41+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)				
		7-16	17-27	28-40	00 03					06 09	12 15	18 21		
N	1.9	2.3	.2	.0	.0		4.4	7.7	5.3	4.5	3.5	4.4		
NE	1.6	1.8	.2	*	.0		3.6	8.8	3.8	3.4	3.2	3.9		
E	1.2	.7	*	*	.0		1.9	7.7	1.5	1.8	2.3	2.2		
SE	2.1	1.5	*	*	.0		3.7	7.4	3.3	3.8	4.2	3.4		
S	6.2	16.1	1.6	*	.0		23.9	9.4	19.0	20.6	28.3	27.5		
SW	8.7	32.8	3.1	*	.0		45.6	9.7	45.7	45.4	46.0	45.5		
W	3.9	6.4	.3	*	.0		10.7	8.5	14.7	12.8	7.3	8.1		
NW	1.6	1.2	.1	*	.0		3.0	7.3	4.1	3.4	2.0	2.4		
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0		
CALM	3.3						3.3	.0	2.8	4.4	3.1	2.8		
TOT OBS						29783		9.1	6714	7953	6552	8562		
TOT PCT	30.4	63.9	5.6	.1	.0		100.0		100.0	100.0	100.0	100.0		

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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)				48+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47					
00003	2.8	6.7	57.1	32.8	.6	*	.0	.0	9.2	100.0	6714
06009	4.4	6.9	60.0	28.2	.5	*	.0	.0	8.7	100.0	7955
12015	3.1	7.7	54.5	34.0	.7	*	.0	.0	9.3	100.0	6552
18021	2.8	6.9	54.5	35.3	.5	.0	.0	.0	9.3	100.0	8562
TOT									9.1		29783
PCT	3.3	7.0	56.5	32.6	.6	*	.0		100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	.7	.6	1.3	1.5		6.0
NE	.7	.6	1.0	.8		5.3
E	.4	.2	.7	.5		5.7
SE	.5	.5	1.1	1.3		6.1
S	1.4	2.1	8.8	11.3		6.5
SW	2.2	4.4	18.2	22.2		6.5
W	.8	1.3	4.6	4.3		6.3
NW	.3	.5	1.0	.9		6.0
VAR	.0	.0	.0	.0		.0
CALM	.7	.6	1.0	.9		5.6
TOT OBS					14199	6.3
TOT PCT	7.8	10.8	37.7	43.7	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8)
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

WIND DIRECTION												
000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH <5/8 ANY HGT	TOTAL OBS	
*	*	.1	.4	.7	.3	.2	*	*	.1	2.3		
*	*	.1	.2	.4	.2	.1	.1	*	*	2.0		
*	.0	.1	.1	.3	.2	.1	*	*	*	1.0		
*	*	.1	.3	.6	.5	.2	*	*	*	1.6		
.2	.1	.8	3.8	6.8	3.0	1.0	.3	.1	.2	7.5		
.2	.3	1.5	8.0	13.8	5.2	1.6	.5	.2	.2	15.5		
*	.1	.3	1.5	2.8	1.1	.3	.1	*	.1	4.7		
*	*	.1	.3	.6	.2	.1	*	*	*	1.3		
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
*	*	.1	.3	.5	.1	.1	*	*	*	1.9		
.5	.5	3.1	14.9	26.4	10.7	3.5	1.1	.5	.7	38.0		
										14199		
										100.0		

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE
OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)							
	= OR >10	= OR >5	= OR >2	= OR >1	= OR >1/2	= OR >1/4	= OR >50YD	= OR >0
= OR >6500	1.0	1.2	1.2	1.2	1.2	1.2	1.2	1.2
= OR >5000	1.9	2.3	2.4	2.4	2.4	2.4	2.4	2.4
= OR >3500	4.8	5.9	5.9	5.9	5.9	5.9	5.9	5.9
= OR >2000	13.8	16.3	16.6	16.6	16.6	16.6	16.6	16.6
= OR >1000	36.2	42.2	42.8	42.8	42.8	42.8	42.8	42.8
= OR >600	47.8	56.5	57.5	57.6	57.6	57.6	57.6	57.6
= OR >300	49.6	59.2	60.5	60.7	60.7	60.7	60.7	60.7
= OR >150	49.9	59.7	61.0	61.2	61.2	61.3	61.3	61.3
= OR >0	50.1	60.0	61.4	61.7	61.7	61.8	61.8	61.8

TOTAL NUMBER OF OBS: 14454

PCT FREQ NH <5/8: 38.2

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8 OBSCD	TOTAL OBS
4.2	5.6	8.5	9.7	9.9	8.3	11.1	12.1	30.4	15514

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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	*	*	*	*	*	*	.0	.0	.1	
	NO PCP	.0	*	*	*	*	*	*	*	.0	.0	.0	*
	TOT %	.0	*	*	*	*	*	*	*	.0	.0	.1	
1/2<1	PCP	*	*	.0	*	*	*	*	*	.0	.0	.1	
	NO PCP	*	*	.0	.0	*	*	*	*	.0	.0	.1	*
	TOT %	*	*	.0	*	*	*	*	*	.0	*	.2	
1<2	PCP	*	*	*	*	*	.1	*	*	.0	.0	.2	
	NO PCP	*	*	*	*	*	.0	.0	.0	.0	.0	.1	*
	TOT %	*	*	*	*	.1	.1	*	*	.0	*	.3	
2<5	PCP	.1	.1	*	.1	.2	.4	.2	*	.0	*	1.0	
	NO PCP	.1	.1	*	*	.1	.3	.1	*	.0	*	.8	*
	TOT %	.1	.1	.1	.1	.3	.7	.3	.1	.0	.1	1.7	
5<10	PCP	.2	.1	.1	.2	1.1	2.0	.4	.1	.0	.1	4.3	
	NO PCP	.8	1.0	.5	.9	4.5	6.4	1.5	.4	.0	.5	16.5	*
	TOT %	1.0	1.1	.6	1.1	5.7	8.4	1.9	.5	.0	.5	20.8	
10+	PCP	.1	*	*	.1	.7	1.2	.3	.1	.0	.1	2.7	
	NO PCP	3.1	2.4	1.3	2.5	17.0	35.7	8.2	1.8	.0	2.2	74.2	*
	TOT %	3.2	2.4	1.3	2.6	17.8	36.9	8.6	1.9	.0	2.3	76.9	
TOT OBS													18504
TOT PCT		4.4	3.7	2.0	3.8	23.9	46.1	10.8	2.6	.0	2.9	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	*	*	.0	*	*	.0	*	.0	.0	*	
	4-10	.0	*	.0	*	*	*	*	*	.0	.0	*	
	11-21	.0	.0	*	*	*	*	.0	*	.0	.0	*	
	22+	.0	.0	.0	*	.0	.0	*	.0	.0	.0	*	
	TOT %	.0	*	*	*	.0	*	*	*	.0	.0	.1	
1/2<1	0-3	*	*	.0	*	*	*	.0	.0	.0	*	.1	
	4-10	*	*	.0	*	*	*	*	*	.0	.0	.1	
	11-21	*	*	.0	.0	*	*	.0	*	.0	.0	.1	
	22+	*	*	.0	.0	.0	.0	.0	.0	.0	.0	*	
	TOT %	*	*	.0	*	*	.1	*	*	.0	*	.2	
1<2	0-3	*	*	.0	*	*	*	.0	*	.0	*	.1	
	4-10	*	*	*	*	*	.1	*	*	.0	.0	.2	
	11-21	.0	*	*	*	*	.1	*	.0	.0	.0	.1	
	22+	.0	.0	.0	.0	*	*	*	.0	.0	.0	*	
	TOT %	*	*	*	*	.1	.2	.1	*	.0	*	.5	
2<5	0-3	*	*	*	*	*	.1	*	*	.0	.1	.3	
	4-10	.1	.1	*	*	.2	.5	.2	.1	.0		1.3	
	11-21	*	*	*	*	.1	.3	.1	*	.0	.0	.6	
	22+	.0	*	.0	.0	*	*	*	*	.0	.0	*	
	TOT %	.2	.1	.1	.1	.4	.9	.3	.1	.0	.1	2.2	
5<10	0-3	.2	.1	.1	.2	.3	.3	.2	.1	.0	.6	2.2	
	4-10	.5	.6	.3	.6	3.0	4.7	1.2	.4	.0		11.4	
	11-21	.3	.2	.1	.1	1.8	3.7	.6	.1	.0		6.9	
	22+	*	*	*	.0	*	.1	*	.0	.0	.0	.1	
	TOT %	1.0	1.0	.5	1.0	5.1	8.7	2.0	.6	.0	.6	20.6	
10+	0-3	.5	.3	.3	.4	1.0	1.3	.8	.4	.0	2.5	7.5	
	4-10	1.9	1.3	.8	1.7	9.4	19.6	6.0	1.5	.0		42.3	
	11-21	.8	.6	.1	.3	5.9	16.0	2.3	.2	.0		26.3	
	22+	*	*	*	*	.1	.2	*	*	.0	.0	.3	
	TOT %	3.3	2.3	1.2	2.3	16.4	37.1	9.1	2.1	.0	2.5	76.4	
TOT OBS													21972
TOT PCT		4.5	3.5	1.8	3.4	22.1	47.0	11.6	2.9	.0	3.2	100.0	

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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET) NH >4/8) AND
OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00003	.4	.6	2.9	12.7	24.4	9.5	2.9	1.2	.3	.8	55.8	44.2	3922
06009	.8	.3	2.6	16.0	25.4	10.2	3.6	1.0	.6	1.2	61.7	38.3	3362
12015	.5	.9	4.1	17.9	28.1	11.3	3.7	1.2	.5	.5	68.7	31.3	3896
18021	.4	.3	2.5	11.4	24.9	10.4	3.8	1.0	.4	.5	55.7	44.3	3674
TOT PCT	.5	.5	3.0	14.5	25.7	10.4	3.5	1.1	.5	.7	60.5	39.5	14854 100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.1	.2	.3	1.6	16.9	80.9	5337
06009	.1	.2	.4	2.5	26.0	70.9	5976
12015	.2	.3	.7	2.9	19.7	76.2	5268
18021	.1	.3	.4	1.9	19.8	77.5	5862
TOT PCT	.1	.2	.5	2.2	20.7	76.3	22443 100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR
CEILING HGT (FEET) NH >4/8) BY HOUR

HOUR (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND 5+	NH <5/8 AND 5+	TOTAL OBS
00003	.4	4.1	17.8	39.6	42.5	3793
06009	.9	3.9	20.9	42.6	36.5	3283
12015	.5	5.7	24.9	45.0	30.1	3815
18021	.4	3.3	15.6	41.6	42.8	3563
TOT PCT	.5	4.3	19.9	42.2	38.0	14454 100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
95/99	.0	.0	*	*	.0	.0	.0	.0	*	*
90/94	.0	*	.0	*	.1	*	*	.0	.1	.1
85/89	.0	.0	*	*	.3	.9	.2	.1	1.5	1.5
80/84	.0	.0	*	*	.8	8.1	9.4	1.7	20.0	20.0
75/79	.0	.0	*	*	.3	9.6	27.4	16.5	63.8	63.8
70/74	.0	.0	.0	*	.1	1.1	7.4	5.0	13.6	13.6
65/69	.0	.0	.0	.0	.0	*	.5	.3	.9	.9
TOTAL PCT	.0	*	*	.1	1.5	19.8	54.9	23.5	17223	100.0

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
95/99	.0	*	.0	.0	.0	*	.0	*	.0	.0
90/94	*	*	*	.0	*	.1	*	*	.0	*
85/89	.1	.1	.1	.1	.4	.4	.1	.1	.0	.1
80/84	1.6	1.6	.8	.8	3.9	6.7	2.6	.9	.0	.9
75/79	2.2	1.9	1.1	2.6	15.2	31.0	6.8	1.3	.0	1.7
70/74	.1	.1	.2	.8	5.4	6.1	.6	.1	.0	.2
65/69	.0	*	*	.1	.4	.3	*	.0	.0	*
TOTAL	4.1	3.8	2.2	4.4	25.4	44.7	10.2	2.4	.0	2.9

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	97	83	81	78	73	71	64	77.5	6808
06009	89	81	80	77	73	70	64	76.7	8139
12015	91	82	81	77	73	70	63	76.8	6637
18021	97	87	84	79	74	72	65	79.2	8445
TOT	97	85	82	78	73	70	63	77.6	30029

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	.1	.7	17.3	61.7	20.2	85	4398		
06009	.0	*	.3	11.0	57.6	31.0	86	4544		
12015	.0	.2	.6	11.8	57.0	30.4	86	4421		
18021	.0	.5	4.6	39.1	42.9	12.8	81	4409		
TOT	0	36	278	3522	9719	4217	85	17772		

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TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	61 64	65 68	69 72	73 76	77 80	81 84	85 88	89 92	92	TOT	N FOG	NO FOG
20/22	.0	.0	.0	.0	.0	.0	.0	.0	*	1	.0	*
17/19	.0	.0	.0	.0	*	.0	*	*	*	3	.0	*
14/16	.0	.0	.0	.0	*	*	*	*	*	18	.0	.1
11/13	.0	.0	.0	*	*	*	*	.1	*	32	.0	.2
9/10	.0	.0	.0	*	.1	.1	.1	.1	*	61	.0	.3
7/8	.0	.0	*	.1	.2	.3	.2	.1	.0	158	*	.9
6	.0	.0	*	.1	.1	.1	.2	*	.0	102	*	.6
5	.0	.0	*	.2	.3	.4	.2	*	.0	204	*	1.1
4	.0	.0	*	.1	.5	.8	.3	*	.0	311	*	1.7
3	.0	.0	*	.1	.6	1.1	.1	*	.0	365	*	2.0
2	*	*	*	*	1.4	1.8	.2	*	.0	700	.1	3.8
1	.0	*	.1	.8	2.9	2.0	.1	.0	.0	1056	.2	5.7
0	.0	*	.2	1.6	7.1	2.4	*	.0	.0	2025	.3	11.0
-1	.0	*	.2	2.9	10.4	1.6	*	.0	.0	2670	.4	14.7
-2	.0	*	.4	5.2	11.9	.9	*	.0	.0	3214	.3	18.1
-3	.0	*	.5	5.8	7.8	.5	.0	.0	.0	2536	.2	14.6
-4	.0	*	.8	5.1	3.9	.2	.0	.0	.0	1707	.1	9.8
-5	.0	*	.8	3.4	2.4	.1	.0	.0	.0	1170	*	6.8
-6	.0	*	.6	1.8	.9	*	.0	.0	.0	580	*	3.4
-7/-8	.0	.1	.5	1.4	.7	.1	.0	.0	.0	464	*	2.7
-9/-10	*	*	.2	.3	.1	.0	.0	.0	.0	106	.0	.6
-11/-13	.0	*	.1	.1	*	.0	.0	.0	.0	29	*	.2
-14/-16	.0	.0	*	*	.0	.0	.0	.0	.0	2	.0	*
-17/-19	.0	.0	*	.0	.0	.0	.0	.0	.0	1	.0	*
TOTAL										17515		
PCT	*	.4	4.4	29.3	51.5	12.5	1.5	.3	*	100.0	1.8	98.2

PERIOD: (OVER-ALL) 1963-1978

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	N						PCT	NE						PCT
	1-3	4-10	11-21	22-33	34-47	48+		1-3	4-10	11-21	22-33	34-47	48+	
<1	.3	.5	*	.0	.0	.0	.7	.2	.3	.0	.0	.0	.0	.4
1-2	.2	1.4	.3	.0	.0	.0	1.9	.1	1.0	.3	.0	.0	.0	1.5
3-4	*	.6	.7	*	.0	.0	1.3	*	.5	.4	*	.0	.0	1.0
5-6	.0	.1	.4	*	.0	.0	.4	.0	*	.3	*	.0	.0	.3
7	*	*	*	*	.0	.0	.2	*	*	.1	*	*	.0	.1
8-9	.0	.0	*	.0	.0	.0	*	.0	.0	.0	*	.0	.0	*
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	*	.0	.0	*
12	.0	*	.0	.0	.0	.0	*	.0	.0	*	.0	.0	.0	*
13-16	.0	.0	.0	.0	.0	.0	*	.0	.0	.0	*	.0	.0	*
17-19	.0	.0	.0	.0	.0	.0	.0	.0	*	.0	.0	.0	.0	*
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.6	2.6	1.4	.1	.0	.0	4.6	.3	1.9	1.1	.1	*	.0	3.5

HGT	E						PCT	SE						PCT
	1-3	4-10	11-21	22-33	34-47	48+		1-3	4-10	11-21	22-33	34-47	48+	
<1	.1	.2	.0	.0	.0	.0	.4	.1	.4	*	.0	.0	.0	.5
1-2	.1	.7	.1	.0	.0	.0	.9	.1	1.3	.2	.0	.0	.0	1.6
3-4	*	.2	*	.0	.0	.0	.3	*	.7	.1	*	.0	.0	.8
5-6	.0	*	.1	.0	.0	.0	.1	.0	.1	.1	*	.0	.0	.2
7	.0	.0	*	.0	.0	.0	*	.0	.0	*	*	.0	.0	*
8-9	.0	.0	*	.0	.0	.0	*	.0	*	*	*	.0	.0	*
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.2	1.2	.3	*	.0	.0	1.7	.2	2.4	.4	*	.0	.0	3.2

PERIOD: (OVER-ALL) 1963-1978

ANNUAL

AREA 0035 BUENAVENTURA SW
1.8N 80.8W

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

S								SW							
HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	
<1	.7	1.3	.1	.0	.0	.0	2.1	.5	1.8	.1	.0	.0	.0	2.4	
1-2	.5	6.7	2.3	.0	.0	.0	9.6	.5	11.8	4.7	.0	.0	.0	17.0	
3-4	*	3.7	4.2	*	.0	.0	8.0	.2	8.3	10.5	.1	.0	.0	19.1	
5-6	*	.7	1.9	.1	.0	.0	2.7	.1	1.5	5.7	.2	.0	.0	7.5	
7	.0	.1	.4	*	.0	.0	.5	.0	.2	1.2	.1	.0	.0	1.4	
8-9	.0	*	.1	*	.0	.0	.1	.0	*	.2	.1	.0	.0	.3	
10-11	.0	.0	*	.0	.0	.0	*	.0	*	*	*	.0	.0	*	
12	.0	.0	*	.0	.0	.0	*	.0	.0	.0	.0	.0	.0	*	
13-16	.0	*	.0	.0	.0	.0	*	.0	*	.0	.0	.0	.0	*	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	*	.0	.0	.0	.0	*	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	*	.0	.0	.0	*	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	1.3	12.5	9.0	.2	.0	.0	22.9	1.2	23.6	22.5	.4	.0	.0	47.8	

W								NW								TOTAL PCT
HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT		
<1	.4	.9	.1	.0	.0	.0	1.3	.2	.3	*	.0	.0	.0	.5		
1-2	.3	4.1	1.0	.0	.0	.0	5.5	.1	.9	.1	.0	.0	.0	1.2		
3-4	.1	1.7	1.4	.0	.0	.0	3.2	.0	.3	.2	.0	.0	.0	.4		
5-6	.0	.2	.6	.0	.0	.0	.8	.0	*	.1	*	.0	.0	.1		
7	.0	*	*	.0	.0	.0	.1	.0	.0	*	.0	.0	.0	*		
8-9	.0	*	*	.0	.0	.0	*	.0	*	*	.0	.0	.0	*		
10-11	.0	.0	.0	.0	.0	.0	*	.0	.0	.0	.0	.0	.0	.0		
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
17-19	.0	.0	.0	.0	.0	.0	.0	.0	*	.0	.0	.0	.0	*		
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
TOT PCT	.8	7.0	3.1	*	.0	.0	10.9	.3	1.6	.4	*	.0	.0	2.3	96.8	

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	6.1	5.6	.3	.0	.0	.0	12.0	
1-2	2.4	27.8	9.0	.0	.0	.0	39.2	
3-4	.4	15.8	17.4	.1	.0	.0	33.8	
5-6	.1	2.6	8.9	.3	.0	.0	12.0	
7	*	.3	1.8	.1	*	.0	2.3	
8-9	.0	.1	.3	.1	.0	.0	.5	
10-11	.0	*	*	*	.0	.0	.1	
12	.0	*	*	.0	.0	.0	*	
13-16	.0	*	.0	*	.0	.0	*	
17-19	.0	.1	.0	.0	.0	.0	.1	
20-22	.0	.0	*	.0	.0	.0	*	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	9.0	52.3	37.8	.8	*	.0	100.0	7592

PERIOD: (OVER-ALL) 1949-1977

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	3.5	17.0	22.5	8.6	1.7	.4	*	*	*	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	6737	3
6-7	.1	2.0	8.4	8.4	2.4	.6	.2	.1	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2746	4
8-9	*	.6	1.9	2.4	1.0	.3	.1	*	*	*	*	.0	.0	.0	.0	.0	.0	.0	.0	802	4
10-11	.0	1.0	.7	.6	.4	.2	.1	*	*	*	*	.0	.0	.0	.0	.0	.0	.0	.0	390	5
12-13	.0	.0	.8	.3	.3	*	*	*	*	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	187	5
>13	.0	.0	.0	.3	.1	*	*	*	*	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	63	6
INDET	4.0	2.9	3.2	1.7	.6	.1	*	.1	*	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	1653	2
TOTAL																				12578	3
PCT	7.5	23.6	37.4	22.3	6.5	1.7	.5	.2	.1	.1	*	.0	.0	.0	.0	.0	.0	.0	.0	100.0	

PERIOD: (PRIMARY) 1924-1978
(OVER-ALL) 1861-1978

TABLE 20

AREA 0035 BUENAVENTURA SW
1.8N 80.8W

PERCENT FREQUENCY OF OCCURRENCE OF SEA TEMP (DEG F) BY MONTH

SEA TMP DEG F	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANN	PCT
96+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
95/96	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
93/94	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
91/92	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
89/90	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	5	.0
87/88	.2	.2	.4	.4	.3	.1	.1	.1	.1	.1	.2	.2	46	.2
85/86	.7	1.0	1.3	2.8	2.0	1.5	1.2	.5	.3	.6	.5	.3	318	1.1
83/84	2.5	5.9	6.7	11.1	8.8	6.7	3.9	3.1	2.2	2.9	2.2	1.7	1443	4.9
81/82	17.8	26.1	29.1	29.3	32.0	23.5	15.5	14.2	13.8	17.7	14.8	13.8	5979	20.4
79/80	38.5	37.6	30.8	28.6	32.4	38.0	37.6	35.0	36.6	40.7	32.2	32.9	10260	35.0
77/78	27.8	19.6	19.8	16.7	14.3	19.0	28.2	28.5	29.5	24.2	31.8	35.5	7118	24.3
75/76	8.9	5.8	10.8	7.2	9.0	7.4	9.1	12.4	10.6	9.7	12.0	11.8	2710	9.2
73/74	2.4	2.5	4.9	2.3	2.2	2.5	2.7	4.2	4.9	1.8	3.3	2.7	897	3.1
71/72	.7	1.1	2.0	1.1	1.2	.9	.7	.9	1.2	.8	.9	.5	305	1.0
69/70	.3	.1	.5	.3	.5	.2	.6	.3	.5	.6	.7	.4	125	.4
67/68	.1	.1	.2	.1	.3	.2	.4	.4	.2	.6	.7	.2	83	.3
65/66	.0	.0	.0	.0	.0	.0	.1	.2	.1	.1	.2	.0	16	.1
63/64	.0	.0	.0	.0	.0	.1	.1	.1	.1	.1	.3	.0	14	.1
61/62	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3	.0
59/60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
57/58	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
55/56	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
53/54	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
51/52	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
49/50	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
47/48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
45/46	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
43/44	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
41/42	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
39/40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
37/38	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
35/36	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
33/34	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
31/32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
29/30	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
27/28	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
<27	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
TOTAL	2322	2526	2991	2384	2651	2413	2616	2327	2271	2322	2216	2283	29322	100.0
MEAN	78.8	79.4	78.9	79.8	79.8	79.3	78.7	78.4	78.4	78.8	78.3	78.4	78.9	

TABLE 21

PRESSURE (MB)

AVERAGE BY HOUR (GMT)

MO	0000	0300	0600	0900	1200	1500	1800	2100	MEAN	TOTAL OBS
JAN	1010	1011	1011	1010	1011	1013	1011	1009	1011	1872
FEB	1009	1011	1011	1010	1011	1012	1011	1009	1011	2026
MAR	1009	1010	1011	1010	1011	1012	1011	1008	1010	2371
APR	1009	1011	1011	1010	1011	1012	1011	1009	1010	2056
MAY	1010	1012	1012	1011	1011	1013	1012	1010	1011	2137
JUN	1010	1012	1012	1011	1012	1012	1012	1010	1011	1761
JUL	1011	1012	1012	1010	1012	1013	1012	1010	1012	1967
AUG	1011	1012	1012	1011	1012	1013	1012	1010	1012	1795
SEP	1011	1011	1012	1011	1012	1013	1012	1010	1012	1689
OCT	1011	1012	1012	1010	1012	1013	1012	1010	1012	1841
NOV	1011	1012	1012	1010	1012	1013	1012	1009	1011	1686
DEC	1010	1010	1011	1009	1011	1011	1011	1009	1011	1696
ANN	1010	1011	1012	1010	1012	1013	1012	1009	1011	22897
OBS	5077	414	4920	877	5028	426	5315	840		

PERCENTILES

MO	MIN	1%	5%	25%	50%	75%	95%	99%	MAX
JAN	1000	1004	1007	1009	1011	1012	1014	1015	1020
FEB	1000	1005	1007	1009	1011	1012	1014	1016	1023
MAR	999	1003	1007	1009	1010	1012	1013	1015	1022
APR	1000	1005	1007	1009	1011	1012	1014	1015	1024
MAY	1001	1006	1008	1010	1011	1012	1014	1016	1020
JUN	1001	1004	1008	1010	1012	1013	1014	1016	1022
JUL	1002	1006	1008	1010	1012	1013	1015	1017	1026
AUG	1000	1005	1008	1011	1012	1013	1014	1016	1021
SEP	1000	1005	1008	1010	1012	1013	1014	1017	1021
OCT	1001	1006	1008	1010	1012	1013	1015	1017	1021
NOV	1001	1005	1008	1010	1011	1013	1015	1016	1019
DEC	1000	1005	1007	1009	1011	1012	1014	1016	1025

PERIOD: (PRIMARY) 1932-1978
(OVER-ALL) 1888-1978

JANUARY

AREA 0036 GULF OF PANAMA
6.8N 79.9W

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

PRECIPITATION TYPE										OTHER WEATHER PHENOMENA					
WIND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
N	.8	.7	.2	.0	.0	.0	.0	1.7	.8	.9	2.5	.0	2.1	*	92.1
NE	.7	1.0	.4	.0	.0	.0	.0	2.1	1.2	.7	4.7	.0	1.7	*	89.6
E	2.3	.4	.7	.0	.0	.0	.0	3.0	1.7	1.4	2.0	.0	.9	.0	90.9
SE	1.4	1.4	.0	.0	.0	.0	.0	2.8	2.8	.4	1.4	.0	.4	.0	92.3
S	3.4	2.6	2.9	.0	.0	.0	.0	8.9	5.8	2.2	.0	.0	1.0	.0	82.7
SW	6.8	4.2	2.6	.0	.0	.0	.0	13.6	6.1	1.9	2.2	.0	.5	.0	76.0
W	1.8	3.0	2.3	.0	.0	.0	.0	7.1	4.4	4.7	1.4	.0	1.0	.0	81.4
NW	.5	2.2	.2	.0	.0	.0	.0	2.9	1.4	1.7	.8	.0	1.3	.2	91.9
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	1.4	1.4	.7	.0	.0	.0	.0	3.5	2.1	2.8	.0	.0	1.4	.0	90.9
TOT PCT	1.3	1.4	.6	.0	.0	.0	.0	3.1	1.7	1.3	2.4	.0	1.6	.1	89.9
TOT OBS:	3978														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT 08 TIME	PCPN PAST HOUR	THDR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
00603	.8	1.4	.3	.0	.0	.0	.0	2.5	.8	.7	2.2	.0	1.4	.1	92.4
06009	1.3	1.6	.6	.0	.0	.0	.0	3.5	.6	3.8	3.4	.0	.4	.1	88.3
12015	1.5	1.7	.6	.0	.0	.0	.0	3.7	2.8	.9	1.5	.0	2.6	.0	88.6
18021	1.3	1.1	.6	.0	.0	.0	.0	2.9	2.1	.0	3.4	.0	1.9	.0	89.7
TOT PCT	1.3	1.4	.6	.0	.0	.0	.0	3.2	1.6	1.4	2.6	.0	1.6	*	89.6
TOT OBS:	4141														

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							48+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)						
	0-3	4-10	11-21	22-33	34-47		00					03	06	09	12	15	18	21
N	2.1	17.3	23.1	2.2	.0	.0		44.7	12.1		41.8	28.3	41.0	46.8	52.1	50.7	42.8	40.5
NE	1.4	9.2	7.9	.6	.0	.0		19.1	10.8		20.0	20.6	14.5	16.4	17.4	12.9	24.6	27.0
E	.7	2.3	.9	*	.0	.0		3.9	7.9		4.7	2.5	3.7	2.1	2.7	5.7	5.6	2.5
SE	.4	1.0	.2	*	.0	.0		1.7	6.9		1.7	.0	1.6	.3	1.5	1.0	2.6	1.9
S	.4	1.8	.3	*	.0	.0		2.5	6.8		3.0	2.5	2.2	1.4	1.7	5.4	3.1	4.0
SW	.9	3.3	.8	*	.0	.0		5.0	7.4		5.7	4.2	5.5	5.5	3.9	7.4	5.1	4.5
W	.7	3.6	.6	.0	.0	.0		4.9	6.9		6.9	9.2	5.8	3.8	3.5	5.7	4.2	4.7
NW	.8	4.8	4.6	.2	.0	.0		14.3	9.7		11.9	32.5	21.8	21.2	12.9	11.1	8.9	10.0
VAR	.0	.0	.0	.0	.0	.0		.0	.0		.0	.0	.0	.0	.0	.0	.0	.0
CALM	3.8							3.8	.0		4.2	.0	4.1	2.5	4.3	.0	3.1	6.9
TOT OBS	612	2578	2104	170	0	0	5464		10.1		1068	30	1181	365	1356	101	1056	307
TOT PCT	11.2	47.2	38.5	3.1	.0	.0		100.0			100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)				41+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)			
	0-6	7-16	17-27	28-40					00	06	12	18
N	7.9	26.9	9.8	.2	.0		44.7	12.1	41.5	42.4	52.0	42.3
NE	4.6	11.3	3.2	*	.0		19.1	10.8	20.0	14.9	17.1	25.2
E	1.9	1.7	.3	.0	.0		3.9	7.9	4.7	3.3	2.9	4.9
SE	1.1	.5	.1	.0	.0		1.7	6.9	1.6	1.3	1.5	2.4
S	1.5	1.0	.1	*	.0		2.5	6.8	3.0	2.0	2.0	3.3
SW	2.4	2.5	.1	*	.0		5.0	7.4	5.6	5.5	4.1	5.0
W	2.6	2.2	.1	.0	.0		4.9	6.9	7.0	5.3	3.6	4.3
NW	4.0	9.2	1.2	*	.0		14.3	9.7	12.5	21.7	12.8	9.2
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0
CALM	3.8						3.8	.0	4.1	3.7	4.0	3.5
TOT OBS	1625	3019	802	18	0	5464		10.1	1098	1546	1457	1363
TOT PCT	29.7	55.3	14.7	.3	.0		100.0		100.0	100.0	100.0	100.0

PERIOD: (PRIMARY) 1932-1978
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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GHT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)				48+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47					
0000Z	4.1	7.9	51.2	34.4	2.4	.0	.0	.0	9.6	100.0	1098
0600Z	3.7	8.1	47.3	37.6	3.3	.0	.0	.0	10.1	100.0	1346
1200Z	4.0	5.5	43.1	41.7	3.8	.0	.0	.0	10.7	100.0	1437
1800Z	3.5	8.2	46.0	39.5	2.8	.0	.0	.0	10.1	100.0	1363
TOT	208	404	2378	2104	170	0	0	0	10.1		5464
PCT	3.8	7.4	47.2	38.5	3.1	.0	.0	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS) BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	20.2	8.3	9.4	4.4		3.2
NE	9.2	3.8	4.8	1.5		3.1
E	1.9	1.3	1.2	.7		3.7
SE	.3	.4	.8	.5		5.2
S	.5	.8	1.0	.6		4.9
SW	1.0	.5	1.4	2.2		3.7
W	1.6	1.1	1.8	1.0		4.4
NW	5.0	2.7	3.7	2.0		3.8
VAR	.0	.0	.0	.0		.0
CALM	1.1	1.1	1.6	.7		4.5
TOT OBS	1106	540	689	369	2704	3.6
TOT PCT	40.9	20.0	25.5	13.6	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8) AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

	000 149	150 299	300 599	600 999	1000 1999	2000 2499	3500 4999	5000 6499	6500 7999	8000+ NH <5/8 ANY HGT	TOTAL OBS
N	.1	.1	.2	1.7	2.7	1.2	.5	.2	.2	.3	35.0
NE	.0	.1	.1	.6	1.3	.6	.1	.1	.1	.2	16.2
E	.0	.0	.1	.2	.6	.1	.0	.0	.0	.1	4.0
SE	.0	.0	.1	.3	.3	.0	.0	.0	.0	.1	1.2
S	.0	.0	.1	.3	.4	.1	.1	.1	.0	.0	1.7
SW	.0	.0	.1	1.0	1.0	.4	.2	.1	.0	.1	2.2
W	.0	.0	.0	.4	.7	.4	.1	.0	.0	.1	3.7
NW	.0	.0	.1	.8	1.5	.5	.4	.1	.0	.1	9.8
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.1	.3	.2	.4	.1	.1	.0	.0	3.4
TOT OBS	3	7	24	150	237	104	43	15	9	23	2089
TOT PCT	.1	.3	.9	5.5	8.8	3.8	1.6	.6	.3	.9	77.3

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE OF CEILING HEIGHT (NH >4/8) AND VSBY (NH)

CEILING (FEET)	VSBY (NM)							
	= OR >10	= OR >5	= OR >2	= OR >1	= OR >1/2	= OR >1/4	= OR >50YD	= OR >0
= OR >6500	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
= OR >5000	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
= OR >3500	3.1	3.3	3.3	3.3	3.3	3.3	3.3	3.3
= OR >2000	6.5	7.2	7.3	7.3	7.3	7.3	7.3	7.3
= OR >1000	13.6	15.8	16.0	16.1	16.1	16.1	16.1	16.1
= OR >600	17.5	21.3	21.6	21.7	21.7	21.7	21.7	21.7
= OR >300	18.0	22.0	22.4	22.5	22.5	22.5	22.5	22.5
= OR >150	18.1	22.3	22.7	22.8	22.8	22.8	22.8	22.8
= OR >0	18.2	22.3	22.8	22.9	22.9	22.9	22.9	22.9
TOTAL	511	628	641	643	644	644	644	644

TOTAL NUMBER OF OBS: 2812

PCT FREQ NH <5/8: 77.1

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	OBSCD	TOTAL OBS
23.6	19.9	14.6	11.6	7.2	5.2	5.6	4.0	8.2	.1	2941

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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS	
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	*	*	.0	
	NO PCP	*	.1	.0	.0	.0	.0	.0	*	.0	.0	.1	.1	
	TOT %	*	.1	.0	.0	.0	.0	.0	*	.0	*	.1	.1	
1<2	PCP	*	.0	.0	.0	.0	*	.0	*	.0	.0	.1	.1	
	NO PCP	.1	.0	.0	.0	.0	.0	.0	.0	.0	*	.1	.1	
	TOT %	.1	.0	.0	.0	.0	*	.0	*	.0	*	.2	.2	
2<5	PCP	.1	.1	.0	.0	*	*	*	*	.0	.0	.2	.2	
	NO PCP	.2	.1	.1	*	.1	*	*	.1	.0	.0	.6	.6	
	TOT %	.3	.2	.1	*	.1	*	.1	.1	.0	.0	.9	.9	
5<10	PCP	.3	.2	.1	*	.1	.4	.2	.2	.0	.1	1.6	1.6	
	NO PCP	7.2	3.2	.5	.3	.3	.8	.8	2.5	.0	.3	15.9	15.9	
	TOT %	7.6	3.4	.6	.3	.4	1.2	1.0	2.7	.0	.4	17.5	17.5	
10+	PCP	.3	.1	.0	*	.0	.3	.1	.2	.0	*	1.1	1.1	
	NO PCP	35.3	15.7	3.7	1.5	2.1	3.5	4.0	11.4	.0	3.2	80.2	80.2	
	TOT %	35.6	15.8	3.7	1.5	2.1	3.8	4.1	11.6	.0	3.2	81.3	81.3	
TOT OBS														3966
TOT PCT		43.5	19.4	4.4	1.8	2.6	5.1	5.2	14.4	.0	3.6	100.0		

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS	
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	
2<5	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.1	.1	.0	.0	.0	.1	.1	.1	.0	.0	.0	.5	
	11-21	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.4	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.3	.2	.1	.0	.1	.1	.1	.1	.0	.0	.0	1.0	
5<10	0-3	.4	.3	.0	.1	.1	.1	.2	.1	.0	.4	.1	1.9	
	4-10	3.1	1.5	.0	.2	.2	.8	.7	1.5	.0	.0	.0	8.3	
	11-21	3.1	1.2	.0	.0	.1	.2	.1	.9	.0	.0	.0	5.7	
	22+	.4	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.5	
	TOT %	7.1	3.0	.6	.3	.4	1.0	2.6	.0	.4	.4	.1	16.4	
10+	0-3	1.6	1.0	.6	.3	.3	.7	.6	.6	.0	3.3	.8	8.8	
	4-10	13.6	7.7	2.0	.9	1.5	2.6	2.9	7.5	.0	.0	.0	38.5	
	11-21	19.7	6.5	.7	.2	.1	.6	.5	3.7	.0	.0	.0	32.1	
	22+	1.9	.7	.0	.0	.0	.0	.0	.1	.0	.0	.0	2.8	
	TOT %	36.5	15.8	3.4	1.4	2.0	3.8	4.0	11.9	.0	3.3	.8	82.3	
TOT OBS														4505
TOT PCT		44.0	19.1	4.0	1.7	2.5	5.1	5.1	14.7	.0	3.7	100.0		

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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NM >4/8) AND
OCCURRENCE OF NM <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY MGT	TOTAL OBS
00003	.0	.0	.9	5.9	9.3	2.6	1.6	.8	.3	.9	22.4	77.6	643
06009	.1	.0	.4	3.7	7.6	3.6	1.2	.6	.3	.8	18.3	81.7	727
12015	.1	.4	1.3	6.2	9.4	3.7	1.7	.7	.3	.8	24.7	75.3	892
18021	.2	.5	.5	5.8	7.8	5.4	1.7	.3	.3	.6	23.0	77.0	643
TOT	3	7	24	157	249	111	45	17	9	23	645	2260	2905
PCT	.1	.2	.8	5.4	8.6	3.8	1.5	.6	.3	.8	22.2	77.8	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.0	.3	.1	.7	14.8	84.1	961
06009	.1	.0	.1	.8	18.2	80.9	1291
12015	.1	.2	.2	1.3	14.9	83.4	1278
18021	.0	.0	.2	1.2	17.8	80.8	1141
TOT	2	5	6	48	770	2840	4671
PCT	*	.1	.1	1.0	16.5	82.2	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR
CEILING HGT (FEET, NM >4/8), BY HOUR

HOUR (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ ANDS+	NH <5/8 AND 5+	TOTAL OBS
00003	.0	1.0	7.4	15.9	76.7	622
06009	.1	.6	4.9	14.4	80.7	699
12015	.1	2.0	8.8	16.8	74.5	865
18021	.2	1.1	7.7	16.0	76.4	626
TOT	3	34	204	445	2163	2812
PCT	.1	1.2	7.3	15.8	76.9	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
95/99	.0	.0	.0	.0	.1	.0	.0	.0	2	.1
90/94	.0	.0	.0	.1	.2	.1	.1	.0	20	.6
85/89	.0	.0	.0	.6	2.2	2.3	1.0	.1	215	6.2
80/84	.0	.0	.1	.5	4.3	21.2	21.1	4.9	1802	52.0
75/79	.0	.0	.0	.0	.3	7.9	22.6	9.8	1409	40.7
70/74	.0	.0	.0	.0	.0	.0	.2	.2	15	.4
65/69	.0	.0	.0	.0	.0	.0	.0	.0	1	*
TOTAL	0	0	3	41	243	1097	1559	521	3464	100.0
PCT	.0	.0	.1	1.2	7.0	31.7	45.0	15.0		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
95/99	.0	*	.0	.0	.0	.0	.0	*	.0	.0
90/94	.0	.1	*	*	.0	.0	.0	.1	.0	*
85/89	2.6	1.8	.5	.1	.2	.2	*	.6	.0	.1
80/84	22.5	11.8	2.4	.8	1.0	2.0	3.1	6.5	.0	1.9
75/79	17.6	6.4	1.6	.8	1.2	2.7	2.3	6.5	.0	1.6
70/74	.1	.1	*	*	*	*	*	.1	.0	.0
65/69	.0	*	.0	.0	.0	.0	.0	.0	.0	.0
TOTAL	43.2	20.4	4.5	1.7	2.4	5.0	5.4	13.7	.0	3.7

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	90	86	84	81	77	75	68	80.5	1131
06009	90	84	82	79	76	74	69	79.0	1601
12015	90	85	82	79	76	74	68	79.0	1497
18021	95	91	88	82	77	73	66	82.2	1392
TOT	95	88	85	80	76	74	66	80.1	5621

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL
00003	.0	.5	4.6	33.4	48.6	12.9	82	083
06009	.0	.3	3.3	23.9	55.1	17.4	83	769
12015	.0	.8	3.5	28.7	46.8	20.2	83	972
18021	.0	3.6	17.6	42.1	27.3	9.4	77	1029
TOT	0	45	249	1134	1619	554	81	3601

PERIOD: (PRIMARY) 1932-1978
(OVER-ALL) 1898-1978

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TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	65 68	69 72	73 76	77 80	81 84	85 88	89 92	>92	TOT	H FOG	NO FOG
17/19	.0	.0	.0	.0	.0	.0	.0	.0	1	.0	.0
14/16	.0	.0	.0	.0	.0	.2	.1	.1	13	.0	.3
11/13	.0	.0	.0	.0	.1	.1	.1	.1	13	.0	.3
9/10	.0	.0	.0	.2	.1	.3	.2	.0	33	.0	.9
7/8	.0	.0	.0	.2	.4	.7	.2	.0	58	.0	1.5
6	.0	.0	.0	.2	.4	.5	.1	.0	43	.0	1.1
5	.0	.0	.0	.4	1.0	1.0	.0	.0	89	.1	2.2
4	.0	.0	.2	.6	1.7	.8	.0	.0	125	.1	3.3
3	.0	.0	.1	1.2	2.4	1.0	.0	.0	177	.2	4.5
2	.0	.0	.3	2.3	5.5	.4	.0	.0	322	.2	8.4
1	.0	.0	.4	5.5	6.2	.2	.0	.0	461	.6	11.6
0	.0	.1	.6	10.7	7.2	.2	.0	.0	705	.4	18.4
-1	.0	.0	.3	11.4	4.9	.1	.0	.0	627	.6	16.1
-2	.0	.0	.6	9.7	2.2	.0	.0	.0	469	.1	12.4
-3	.0	.0	.6	4.6	1.4	.1	.0	.0	252	.1	6.6
-4	.0	.0	.8	3.1	.3	.0	.0	.0	159	.0	4.2
-5	.0	.0	.5	1.9	.2	.0	.0	.0	102	.0	2.7
-6	.0	.0	.4	1.0	.0	.0	.0	.0	53	.0	1.4
-7/-8	.0	.1	.3	.6	.1	.0	.0	.0	43	.0	1.1
-9/-10	.0	.0	.1	.2	.0	.0	.0	.0	13	.0	.3
-11/-13	.0	.0	.0	.0	.0	.0	.0	.0	1	.0	.0
TOTAL	2	8	199	2025	1285	205	30	6	3760	90	3670
PCT	.1	.2	5.3	53.9	34.2	5.5	.8	.2	100.0	2.4	97.6

PERIOD: (OVER-ALL) 1963-1978

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	N								NE							
	1-3	4-10	11-21	22-33	34-47	48+	PCT		1-3	4-10	11-21	22-33	34-47	48+	PCT	
<1	.5	2.5	.1	.0	.0	.0	3.1		.4	1.1	.1	.0	.0	.0	1.5	
1-2	.7	6.8	5.6	.0	.0	.0	13.1		.2	4.7	2.3	.0	.0	.0	7.2	
3-4	.1	4.1	10.3	.5	.0	.0	15.1		.0	2.3	4.0	.1	.0	.0	6.5	
5-6	.0	.7	6.7	.8	.0	.0	8.2		.0	.0	1.8	.2	.0	.0	2.6	
7	.0	.1	1.7	.5	.0	.0	2.3		.0	.0	.0	.0	.0	.0	.8	
8-9	.0	.1	.7	.1	.0	.0	.9		.0	.0	.0	.0	.0	.0	.2	
10-11	.0	.0	.0	.0	.0	.0	.0		.0	.0	.1	.2	.0	.0	.3	
12	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	
TOT PCT	1.4	14.4	25.2	1.9	.0	.0	42.8		.6	8.8	8.9	.8	.0	.0	19.1	

HGT	E								SE							
	1-3	4-10	11-21	22-33	34-47	48+	PCT		1-3	4-10	11-21	22-33	34-47	48+	PCT	
<1	.2	.2	.0	.0	.0	.0	.4		.2	.3	.0	.0	.0	.0	.5	
1-2	.2	2.4	.6	.0	.0	.0	3.3		.0	.9	.0	.0	.0	.0	1.0	
3-4	.1	.5	.4	.0	.0	.0	1.0		.0	.4	.2	.0	.0	.0	.6	
5-6	.0	.0	.3	.0	.0	.0	.4		.0	.0	.0	.0	.0	.0	.0	
7	.0	.0	.1	.0	.0	.0	.1		.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.6	3.2	1.4	.0	.0	.0	5.2		.2	1.6	.2	.0	.0	.0	2.1	

PERIOD: (OVER-ALL) 1963-1978

JANUARY

AREA 0036 GULF OF PANAMA
6.8N 79.9W

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOT PCT
<1	.1	.4	.0	.0	.0	.0	.5	.1	.6	.0	.0	.0	.0	.7	
1-2	.2	1.1	.0	.0	.0	.0	1.3	.3	2.2	.3	.0	.0	.0	2.7	
3-4	.0	.3	.2	.0	.0	.0	.5	.0	.7	.0	.0	.0	.0	1.4	
5-6	.0	.1	.1	.0	.0	.0	.1	.0	.0	.3	.0	.0	.0	.3	
7	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1	
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.1	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.3	1.8	.3	.0	.0	.0	2.4	.4	3.6	1.4	.0	.0	.0	5.4	

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOT PCT
<1	.4	.8	.0	.0	.0	.0	1.2	.1	.8	.1	.0	.0	.0	.9	
1-2	.1	2.3	.4	.0	.0	.0	2.8	.2	4.8	1.2	.0	.0	.0	6.1	
3-4	.0	.5	.5	.0	.0	.0	1.0	.0	1.4	2.4	.1	.0	.0	3.8	
5-6	.0	.1	.1	.0	.0	.0	.2	.0	.4	.9	.0	.0	.0	1.2	
7	.0	.0	.2	.0	.0	.0	.2	.0	.1	.2	.1	.0	.0	.3	
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.1	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.5	3.7	1.2	.0	.0	.0	5.4	.2	7.4	4.7	.1	.0	.0	12.5	95.0

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	8.6	6.7	.3	.0	.0	.0	15.5	
1-2	3.1	24.6	10.0	.0	.0	.0	37.7	
3-4	.3	9.8	18.1	.7	.0	.0	28.8	
5-6	.0	1.7	9.8	1.1	.0	.0	12.5	
7	.0	.4	2.7	.7	.0	.0	3.8	
8-9	.1	.3	.9	.1	.0	.0	1.3	
10-11	.0	.0	.1	.2	.0	.0	.3	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	12.0	43.4	41.8	2.8	.0	.0	100.0	1395

PERIOD: (OVER-ALL) 1949-1978

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	4.7	20.7	21.5	9.7	2.3	.9	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1479	3
6-7	.1	1.9	6.0	6.2	2.3	1.1	.3	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	442	5
8-9	.0	.7	1.3	1.1	.9	.6	.3	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	128	5
10-11	.0	.7	.4	.4	.2	.4	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	56	5
12-13	.0	.0	1.4	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	43	4
>13	.0	.0	.0	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	15	5
INDEX	5.7	2.1	2.7	1.0	.6	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	302	2
TOTAL	260	643	819	472	160	80	20	7	3	1	0	0	0	0	0	0	0	0	0	2463	3
PCT	10.5	26.1	33.2	19.1	6.5	3.2	.8	.3	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	

PERIOD: (PRIMARY) 1930-1978
(OVER-ALL) 1861-1978

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AREA 0036 GULF OF PANAMA
6.9N 79.9W

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

PRECIPITATION TYPE										OTHER WEATHER PHENOMENA					
WIND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST BLWG SNOW	NO SIG WEA
N	.3	.2	*	.0	.0	.0	.0	.5	.1	.3	1.5	.0	3.7	.0	93.8
NE	.3	.3	*	.0	.0	.0	.0	.6	.1	.5	2.4	.0	4.2	.0	92.3
E	.9	.0	.4	.0	.0	.0	.0	1.3	.5	.4	2.3	.0	1.5	.0	94.0
SE	.9	1.8	.0	.0	.0	.0	.0	2.7	.9	1.1	.9	.0	4.0	.0	90.4
S	.0	2.6	.7	.0	.0	.0	.0	3.3	2.4	1.5	.9	.0	7.2	.0	84.6
SW	2.5	.8	1.0	.0	.0	.0	.0	4.3	2.7	1.6	.0	.0	1.6	.2	90.0
W	2.4	.0	.0	.0	.0	.0	.0	2.4	2.8	1.0	.0	.0	4.3	.6	89.3
NW	.9	.3	.2	.0	.0	.0	.0	1.3	.1	.5	2.0	.0	2.5	.0	93.7
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	1.2	.6	.0	.0	.0	.0	.0	1.9	.6	2.5	.0	.0	3.7	.0	91.4
TOT PCT	.6	.4	.1	.0	.0	.0	.0	1.0	.4	.6	1.6	.0	3.6	*	92.8
TOT OBS:	4236														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

PRECIPITATION TYPE										OTHER WEATHER PHENOMENA					
HOUR (GMT)	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST BLWG SNOW	NO SIG WEA
00003	.4	.2	.1	.0	.0	.0	.0	.8	.3	.4	1.2	.0	3.7	.1	93.5
06009	.3	.5	.1	.0	.0	.0	.0	.8	.1	1.8	2.7	.0	1.4	.0	93.2
12015	1.1	.5	.2	.0	.0	.0	.0	1.8	.8	.6	1.5	.0	4.4	.0	91.1
18021	.4	.4	.1	.0	.0	.0	.0	.9	.3	.0	2.0	.0	4.7	.0	92.2
TOT PCT	.6	.4	.1	.0	.0	.0	.0	1.1	.4	.7	1.9	.0	3.5	*	92.4
TOT OBS:	4396														

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	0-3	WIND SPEED (KNOTS)						48+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)					
		4-10	11-21	22-33	34-47	00	03					06	09	12	15	18	21
N	2.2	19.1	21.1	2.2	*	.0		44.7	11.7	37.7	55.4	46.6	47.5	51.4	51.8	41.4	40.4
NE	1.9	10.6	9.2	.8	*	.0		22.4	10.7	25.6	21.7	18.4	16.9	18.6	12.9	27.6	30.7
E	.7	2.7	1.2	.0	.0	.0		4.6	8.0	5.2	7.6	3.1	2.6	3.8	4.9	7.0	4.4
SE	.7	1.6	.2	.0	.0	.0		2.5	5.5	2.9	1.1	1.7	.5	2.2	.3	4.3	2.5
S	.7	1.7	.2	.0	.0	.0		2.6	5.6	3.4	3.3	2.2	1.5	1.8	2.8	3.3	3.4
SW	.7	1.7	.2	*	.0	.0		2.6	6.0	4.0	.0	2.0	1.1	1.8	.0	3.5	2.6
W	.6	1.9	.3	*	.0	.0		2.9	6.5	3.2	.0	3.5	1.4	3.2	2.1	2.4	2.6
NW	1.4	8.1	3.9	.1	.0	.0		13.4	9.0	13.1	10.9	17.3	23.9	13.0	19.1	7.7	9.3
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	4.3							4.3	.0	.0	5.0	.0	5.2	4.6	4.2	6.2	2.7
TOT OBS	738	2636	2016	174	2	0	5566		9.8	1111	23	1135	393	1307	97	1139	361
TOT PCT	13.3	47.4	36.2	3.1	*	.0		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	0-6	WIND SPEED (KNOTS)				41+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)				
		7-16	17-27	28-40	00 03					06 09	12 15	18 21		
N	8.5	27.2	8.7	.3	.0		44.7	11.7	38.1	46.8	51.4	41.1		
NE	5.3	13.3	3.6	.1	.0		22.4	10.7	25.6	18.0	18.3	28.3		
E	2.1	2.2	.2	.0	.0		4.6	8.0	5.2	2.9	3.8	6.4		
SE	1.9	.6	*	.0	.0		2.5	5.5	2.8	1.4	2.1	3.9		
S	1.8	.8	*	.0	.0		2.6	5.6	3.4	2.0	1.9	3.3		
SW	1.6	1.0	*	.0	.0		2.6	6.0	3.9	1.8	1.7	3.3		
W	1.7	1.2	*	.0	.0		2.9	6.5	3.1	2.9	3.1	2.5		
NW	4.8	7.6	.9	*	.0		13.4	9.0	13.0	19.0	13.4	8.1		
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0		
CALM	4.3						4.3	.0	4.9	5.0	4.3	3.1		
TOT OBS	1785	3007	750	24	0	5566		9.8	1134	1528	1404	1500		
TOT PCT	32.1	54.0	13.3	.4	.0		100.0		100.0	100.0	100.0	100.0		

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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

WIND	CALM	1-3	4-10	11-21	22-33	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
00003	4.9	10.3	49.8	33.2	1.8	.0	.0	9.2	100.0	1134
06009	5.0	7.1	48.2	36.5	3.1	.0	.0	9.9	100.0	1328
12015	4.3	9.0	44.9	37.1	4.5	.1	.0	10.2	100.0	1404
18021	3.1	9.8	46.9	37.3	2.9	.0	.0	9.9	100.0	1300
TOT	239	499	2636	2016	174	2	0	9.8		5566
PCT	4.3	9.0	47.4	36.2	3.1	*	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	23.7	8.5	7.8	3.8		2.8
NE	13.3	4.4	4.7	1.4		2.7
E	2.6	.9	1.2	.6		3.3
SE	1.0	.5	.8	.4		3.9
S	1.0	.5	1.0	.5		4.2
SW	1.2	.6	1.1	.7		4.3
W	1.2	.5	1.0	.4		3.9
NW	4.8	2.0	2.3	1.3		3.3
VAR	.0	.0	.0	.0		.0
CALM	1.5	.8	1.2	.6		3.8
TOT OBS	1300	485	548	258	2591	3.1
TOT PCT	50.2	18.7	21.2	10.0	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8)
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

	000	150	300	600	1000	2000	3500	5000	6500	8000+	NH <5/8	TOTAL
	149	299	599	999	1999	3499	4999	6499	7999		ANY HGT	OBS
N	.1	*	.1	1.1	2.1	.8	.4	.3	.1	.7	38.1	
NE	*	*	.1	.6	.6	.4	.3	.2	.2	.3	21.2	
E	*	*	.0	.3	.5	*	*	.0	.1	.1	4.3	
SE	.0	.0	*	.2	.3	.0	*	.0	.0	.0	2.1	
S	.0	.0	.1	.2	.3	*	.0	*	*	*	2.2	
SW	.0	.0	.1	.2	.3	.2	.0	.0	.0	*	2.7	
W	.0	.0	*	.3	.2	.2	*	.0	.0	*	2.2	
NW	.0	.0	.2	.4	.8	.3	.3	.0	.1	.1	8.5	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	*	*	.2	.6	.2	.1	.0	.0	*	2.9	
TOT OBS	3	3	17	88	147	57	27	14	14	36	2185	2591
TOT PCT	.1	.1	.7	3.4	5.7	2.2	1.0	.5	.5	1.4	84.3	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE
OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	= OR >10	= OR >5	= OR >2	VSBY (NM) = OR >1	= OR >1/2	= OR >1/4	= OR >50YD	= OR >0
= OR >6500	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.9
= OR >5000	2.2	2.5	2.5	2.5	2.5	2.5	2.5	2.5
= OR >3500	3.1	3.4	3.4	3.4	3.4	3.4	3.4	3.4
= OR >2000	5.2	5.7	5.7	5.7	5.7	5.7	5.7	5.7
= OR >1000	9.9	11.2	11.3	11.3	11.3	11.3	11.3	11.3
= OR >600	12.5	14.4	14.6	14.7	14.7	14.7	14.7	14.7
= OR >300	12.9	15.0	15.2	15.3	15.3	15.4	15.4	15.4
= OR >150	13.0	15.0	15.3	15.4	15.4	15.5	15.5	15.5
= OR >0	13.1	15.2	15.5	15.6	15.6	15.7	15.7	15.7
TOTAL	331	407	415	417	418	419	420	420

TOTAL NUMBER OF OBS: 2680

PCT FREQ NH <5/8: 84.3

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	OBSCD	TOTAL OBS
33.3	22.5	13.4	8.6	6.0	3.9	4.3	3.0	4.9	*	2830

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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	*	*	*	.0	.0	*	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	*	*	*	.0	.0	*	
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	*	*	
	NO PCP	.3	*	*	.0	.0	.0	.0	.2	.0	.0	.5	
	TOT %	.3	*	*	.0	.0	*	.0	.2	.0	*	.5	
1<2	PCP	.0	*	.0	.0	.0	.0	.0	.0	.0	.0	*	
	NO PCP	.3	.2	.0	*	*	.0	.0	.0	.0	.0	.5	
	TOT %	.3	.2	.0	*	*	.0	.0	.0	.0	.0	.5	
2<5	PCP	*	.0	.0	.0	.0	.0	*	*	.0	*	.1	
	NO PCP	.5	.3	*	.1	*	*	.1	.1	.0	*	1.3	
	TOT %	.5	.3	*	.1	*	*	.1	.2	.0	.1	1.4	
5<10	PCP	.2	*	*	*	.1	.1	.1	.1	.0	*	.6	
	NO PCP	8.7	3.7	.6	.7	.4	.3	.7	4.6	.0	1.0	20.8	
	TOT %	8.9	3.8	.6	.7	.5	.4	.8	4.7	.0	1.0	21.4	
10+	PCP	*	*	*	*	*	*	.0	*	.0	.0	.2	
	NO PCP	34.2	17.8	3.9	1.8	2.0	2.4	2.0	9.1	.0	2.7	75.9	
	TOT %	34.2	17.8	4.0	1.8	2.0	2.4	2.0	9.1	.0	2.7	76.1	
TOT OBS													4214
TOT PCT													44.2 22.1 4.7 2.6 2.6 2.9 2.8 14.2 .0 3.8 100.0

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	*	*	.0	.0	*	*	
	11-21	.0	.0	.0	.0	.0	*	*	*	.0	*	*	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	*	*	*	.0	.0	.1	
1/2<1	0-3	*	*	*	.0	.0	.0	.0	.1	.0	*	.2	
	4-10	.1	.0	.0	.0	.0	*	.0	.1	.0	.0	.2	
	11-21	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.2	*	*	.0	.0	*	.0	.2	.0	*	.5	
1<2	0-3	*	.1	*	.0	*	.0	.0	.0	.0	.0	.2	
	4-10	.1	.1	.0	*	*	.0	.0	*	.0	.0	.2	
	11-21	.2	*	.0	.0	.0	.0	.0	.0	.0	.0	.2	
	22+	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	*	
	TOT %	.3	.2	*	*	*	*	.0	*	*	.0	.6	
2<5	0-3	*	.1	*	*	*	*	.0	.1	.0	.1	.3	
	4-10	.2	.2	*	*	*	*	.1	*	.0	.0	.5	
	11-21	.3	*	*	.0	.0	*	.0	.1	.0	.0	.4	
	22+	*	*	.0	.0	.0	.0	.0	.0	.0	.0	.1	
	TOT %	.5	.3	.1	.1	*	*	.1	.2	.0	.1	1.4	
5<10	0-3	.6	.5	.1	.4	.2	.1	.1	.5	.0	.9	3.6	
	4-10	4.0	1.6	.3	.2	.2	.2	.3	3.0	.0	.0	10.1	
	11-21	3.5	1.2	.2	*	*	*	.1	.8	.0	.0	5.9	
	22+	.4	.2	.0	.0	.0	*	*	*	.0	.0	.6	
	TOT %	8.4	3.5	.6	.7	.5	.4	.8	4.4	.0	.9	20.2	
10+	0-3	1.6	1.1	.6	.4	.5	.5	.5	.7	.0	3.1	9.0	
	4-10	14.3	8.0	2.3	1.4	1.4	1.7	1.3	5.4	.0	.0	35.8	
	11-21	17.0	7.7	1.1	.2	.1	.1	.2	3.2	.0	.0	29.7	
	22+	2.0	.7	.0	.0	.0	.0	.0	.1	.0	.0	2.8	
	TOT %	34.9	17.6	3.9	1.9	2.1	2.4	2.0	9.5	.0	3.1	77.3	
TOT OBS													4637
TOT PCT													44.3 21.7 4.7 2.7 2.6 2.8 2.9 14.2 .0 4.1 100.0

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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NM >4/8) AND
OCCURRENCE OF NM <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NM <5/8 ANY HGT	TOTAL OBS
00003	.2	.2	.5	2.6	4.5	2.1	1.4	.6	1.0	1.8	14.8	85.2	621
06009	.1	.0	.9	4.0	4.6	2.5	.7	.4	.4	.7	14.4	85.6	693
12015	.2	.1	.6	3.2	6.5	2.7	1.1	.5	.5	1.1	16.5	83.5	818
18021	.0	.2	.6	3.2	6.0	1.7	.8	.5	.3	1.8	14.9	85.1	666
TOT	4	3	18	91	153	63	28	14	15	37	426	2372	2798
PCT	.1	.1	.6	3.3	5.5	2.3	1.0	.5	.5	1.3	15.2	84.8	100.0

TABLE 11

PERCENT FREQUENCY VS BY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.0	.2	.4	1.7	17.3	80.3	992
06009	.0	.3	.2	.7	21.6	77.1	1273
12015	.2	.4	.9	1.4	19.2	78.0	1231
18021	.1	.9	.8	1.6	22.3	74.2	1298
TOT	3	23	29	64	973	3702	4794
PCT	.1	.5	.6	1.3	20.3	77.2	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VS BY (NM) AND/OR
CEILING HGT (FEET, NM >4/8) BY HOUR

HOUR (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND 5+	NM <5/8 AND 5+	TOTAL OBS
00003	.2	.8	4.0	11.6	84.4	595
06009	.2	1.1	5.7	9.5	84.8	665
12015	.3	1.2	5.3	12.2	82.6	780
18021	.0	.8	4.4	11.4	84.2	640
TOT	4	26	131	300	2249	2680
PCT	.1	1.0	4.9	11.2	83.9	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
95/99	.0	.0	.0	.1	.0	.0	.0	.0	1	.5
90/94	.0	.0	.1	.2	.1	.1	.0	.0	17	.5
85/89	.0	.0	.3	1.9	1.7	.8	.1	.0	171	4.7
80/84	.0	.0	.4	4.6	19.7	14.3	3.6	.0	1536	42.7
75/79	.0	.0	.0	.4	10.7	25.9	11.3	.0	1744	48.4
70/74	.0	.0	.0	.0	.2	.7	2.7	.0	129	3.6
65/69	.0	.0	.0	.0	.0	.1	.3	.1	3	.1
TOTAL	0	0	2	32	257	1164	1508	638	3601	100.0
PCT	.0	.0	.1	.9	7.1	32.3	41.9	17.7		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
95/99	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0
90/94	.1	.1	.0	.0	.0	.0	.0	.1	.0	.0
85/89	1.5	1.4	.6	.1	.2	.2	.1	.4	.0	.1
80/84	15.9	12.5	2.5	1.5	1.3	1.5	1.3	4.1	.0	2.1
75/79	24.0	10.7	1.7	.9	1.0	1.1	1.3	5.8	.0	1.9
70/74	2.2	.3	.1	.0	.0	.1	.1	.6	.0	.1
65/69	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOTAL	43.8	25.1	5.0	2.5	2.6	2.9	2.9	11.1	.0	4.1

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	94	86	84	80	76	73	69	79.9	1178
06009	87	83	82	78	73	71	68	77.7	1366
12015	95	83	82	78	73	71	67	77.9	1425
18021	97	90	87	81	75	73	68	81.2	1528
TOT	97	87	84	79	74	72	67	79.2	5697

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-39	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	1.2	5.9	34.3	44.6	13.9	81	813
06009	.0	.3	5.0	26.9	44.8	23.0	83	938
12015	.0	.4	3.8	23.8	47.5	24.4	84	999
18021	.0	1.8	13.8	46.1	30.3	8.1	77	966
TOT	0	34	267	1220	1560	655	81	3736

PERIOD: (PRIMARY) 1930-1978
(OVER-ALL) 1861-1978

FEBRUARY

AREA 0036 GULF OF PANAMA
6.9N 79.9W

TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	65 68	69 72	73 76	77 80	81 84	85 88	89 92	>92	TOT	W FOG	WD FOG
17/19	.0	.0	.0	.0	.0	.0	.0	*	1	.0	*
14/16	.0	.0	.0	.0	.1	.1	*	*	7	.0	.2
11/13	.0	.0	.0	.1	.3	.2	.1	.0	26	*	.6
9/10	.0	.0	*	.2	.6	.4	.2	.0	54	.1	1.3
7/8	.0	.0	.1	.6	1.1	.7	.2	.0	99	.1	2.5
6	.0	.1	.4	.5	1.1	.5	*	.0	98	.1	2.5
5	.0	.1	.4	1.1	1.2	.5	.0	.0	130	*	3.3
4	.0	.2	.9	2.1	2.3	.7	.0	.0	244	.1	6.2
3	.0	.1	1.2	2.8	2.5	.5	.0	.0	272	.1	6.9
2	*	.1	1.9	4.8	4.2	.3	.0	*	444	.2	11.3
1	*	.1	1.9	6.9	4.6	.2	.0	.0	535	.4	13.4
0	.0	.3	2.3	9.3	3.8	.1	.0	.0	614	.3	15.6
-1	.0	.1	1.8	6.9	2.6	.1	.0	.0	442	.3	11.1
-2	.0	*	1.9	6.2	1.8	.0	.0	.0	384	.2	9.7
-3	.0	*	.8	2.9	1.0	*	.0	.0	183	.1	4.6
-4	.0	.1	.9	2.2	.4	.1	.0	.0	145	.1	3.7
-5	*	*	.6	1.4	.3	.0	.0	.0	89	.0	2.3
-6	.0	.0	.3	1.1	.1	.0	.0	.0	59	.0	1.5
-7/-8	.0	.0	.2	.5	.1	.1	.0	.0	31	.0	.8
-9/-10	.0	*	.3	.1	.0	.0	.0	.0	15	.0	.4
-11/-13	.0	*	*	*	.0	.0	.0	.0	3	.0	.1
TOTAL	3		614	1088		19			3875	80	3795
PCT	.1	47	15.8	49.8	28.1	4.4	.5	.1	100.0	2.1	97.9

PERIOD: (OVER-ALL) 1963-1978

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.4	1.5	.2	.0	.0	.0	2.2	.6	1.3	.1	.0	.0	.0	2.0
1-2	.7	9.6	4.9	.0	.0	.0	15.2	.6	5.2	2.5	.0	.0	.0	8.4
3-4	.1	4.4	8.8	1.0	.0	.0	14.3	.0	2.9	4.4	.5	.0	.0	7.7
5-6	.1	.7	6.4	1.1	.0	.0	8.2	.1	.3	2.9	.3	.0	.0	3.5
7	.1	.0	2.3	1.1	.0	.0	3.5	.0	.0	1.8	.3	.1	.0	2.2
8-9	.0	.0	.4	.4	.0	.0	.8	.0	.0	.2	.3	.0	.0	.6
10-11	.0	.0	.2	.3	.0	.0	.5	.0	.1	.1	.1	.0	.0	.3
12	.0	.0	.1	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.4	16.1	23.2	3.9	.0	.0	44.7	1.3	9.9	12.0	1.5	.1	.0	24.7

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.3	.8	.0	.0	.0	.0	1.1	.3	.4	.0	.0	.0	.0	.7
1-2	.2	2.3	.3	.0	.0	.0	2.9	.1	1.1	.1	.0	.0	.0	1.2
3-4	.0	.1	.9	.0	.0	.0	1.0	.0	.1	.1	.0	.0	.0	.2
5-6	.0	.2	.3	.0	.0	.0	.4	.0	.0	.0	.0	.0	.0	.0
7	.0	.1	.2	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.5	3.5	1.6	.0	.0	.0	5.6	.4	1.6	.2	.0	.0	.0	2.1

PERIOD: (OVER-ALL) 1963-1978

FEBRUARY

AREA 0036 GULF OF PANAMA
6.9N 79.9W

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.5	.2	.0	.0	.0	.0	.7	.1	.4	.0	.0	.0	.0	.6
1-2	.7	.9	.3	.0	.0	.0	1.9	.4	2.1	.2	.0	.0	.0	2.7
3-4	.0	.3	.1	.0	.0	.0	.4	.1	.1	.1	.0	.0	.0	.3
5-6	.0	.0	.1	.0	.0	.0	.1	.0	.1	.1	.0	.0	.0	.2
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.2	1.4	.5	.0	.0	.0	3.1	.5	2.8	.4	.0	.0	.0	3.7

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.1	.4	.0	.0	.0	.0	.5	.2	.9	.1	.0	.0	.0	1.1	
1-2	.2	1.4	.1	.0	.0	.0	1.7	.5	3.1	.8	.0	.0	.0	4.5	
3-4	.0	.5	.1	.0	.0	.0	.6	.0	1.1	1.1	.2	.0	.0	2.5	
5-6	.1	.1	.0	.0	.0	.0	.1	.0	.1	.7	.1	.0	.0	.8	
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	.0	.0	.0	.3	
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.3	2.3	.2	.0	.0	.0	2.9	.7	5.3	2.9	.3	.0	.0	9.3	96.0

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT QBS
<1	7.7	5.9	.3	.0	.0	.0	13.9	
1-2	4.5	25.3	9.0	.0	.0	.0	38.8	
3-4	.2	9.3	15.0	1.6	.0	.0	26.1	
5-6	.2	1.3	10.1	1.4	.0	.0	13.0	
7	.1	.1	4.4	1.4	.1	.0	6.0	
8-9	.0	.1	.6	.7	.0	.0	1.4	
10-11	.0	.1	.3	.4	.0	.0	.8	
12	.0	.0	.1	.0	.0	.0	.1	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	12.6	42.0	39.7	5.6	.1	.0	100.0	1457

PERIOD: (OVER-ALL) 1949-1978

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	4.9	22.1	21.6	8.8	2.8	1.2	.3	*	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	1442	3
6-7	.2	2.2	4.8	4.8	2.6	.9	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	372	5
8-9	.0	.7	1.5	1.3	.8	.3	.2	*	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	115	5
10-11	.0	1.1	.3	.6	.1	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	50	4
12-13	.0	.0	.7	.3	.2	.1	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	31	5
13-14	.0	.0	.0	.3	.3	.0	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	15	6
INDET	5.5	2.5	2.5	1.4	.7	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	299	2
TOTAL	247	666	736	405	173	67	29	2	3	2	0	0	0	0	0	0	0	0	0	2330	3
PCT	10.6	28.6	31.6	17.4	7.4	2.9	1.2	.1	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	

PERIOD: (PRIMARY) 1933-1978
(OVER-ALL) 1861-1978

MARCH

AREA 0036 GULF OF PANAMA
6.8N 79.8W

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FOG MO PCPN	FOG MO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
N	.1	.1	.2	.0	.0	.0	.0	.4	.4	1.3	3.3	.0	9.1	.1	85.3
NE	.3	.2	.1	.0	.0	.0	.0	.6	.4	1.3	5.1	.0	7.2	.2	85.3
E	.2	.6	.3	.0	.0	.0	.0	1.1	.3	1.2	3.1	.0	10.7	.0	83.7
SE	2.2	1.4	1.2	.0	.0	.0	.0	4.8	1.2	4.6	6.6	.0	9.2	.0	73.9
S	2.7	.9	.5	.0	.0	.0	.0	4.2	3.0	2.6	3.1	.0	5.5	.0	81.7
SW	4.4	.0	.0	.0	.0	.0	.0	4.4	1.1	4.5	2.8	.0	7.8	.0	79.9
W	1.7	2.2	.0	.0	.0	.0	.0	3.9	1.3	1.5	3.4	.0	7.5	.0	82.3
NW	.4	.7	.4	.0	.0	.0	.0	1.6	.8	2.4	5.1	.0	8.0	.0	82.1
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.3	.0	.3	.0	.0	.0	.0	.6	.3	1.3	3.2	.0	15.9	.0	78.7
TOT PCT	.6	.4	.2	.0	.0	.0	.0	1.2	.6	1.7	4.0	.0	8.9	.1	83.6
TOT OBS:	4516														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FOG MO PCPN	FOG MO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
00403	.3	.3	.1	.0	.0	.0	.0	.7	.2	1.6	3.0	.0	10.2	.2	84.3
06409	.5	.3	.0	.0	.0	.0	.0	.8	.2	4.6	5.3	.0	5.2	.0	84.1
12415	1.1	.6	.2	.0	.0	.0	.0	1.9	1.5	1.2	4.3	.0	8.2	.1	82.9
18421	.6	.4	.6	.0	.0	.0	.0	1.5	.6	.2	4.3	.0	12.4	.1	80.9
TOT PCT	.6	.4	.2	.0	.0	.0	.0	1.3	.7	1.9	4.3	.0	9.0	.1	83.0
TOT OBS:	4752														

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							48+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)					
	0-3	4-10	11-21	22-33	34-47	00	03					06	09	12	15	18	21
N	2.3	20.3	16.2	.8	*	.0		39.6	10.5	31.7	40.4	41.9	47.5	45.3	47.4	36.2	34.7
NE	1.8	12.0	8.8	.4	*	.0		22.9	10.1	25.0	22.6	20.2	18.7	21.1	19.1	26.1	28.3
E	1.3	4.2	1.2	*	.0	.0		6.8	7.5	8.9	7.2	3.8	3.7	6.1	6.1	9.0	8.4
SE	1.0	2.3	.3	.0	.0	.0		3.6	3.6	4.3	3.8	2.2	1.7	2.7	3.3	5.8	4.6
S	1.2	2.4	.3	.0	.0	.0		3.8	3.7	4.3	1.9	2.5	2.4	2.9	2.6	6.4	3.7
SW	.8	2.3	.2	.0	.0	.0		3.2	6.1	4.4	1.9	2.5	3.0	2.5	3.7	4.2	3.5
W	.7	1.7	.1	*	.0	.0		2.6	5.9	2.9	.0	3.4	3.5	2.2	3.8	1.7	2.3
NW	1.4	6.2	2.3	.1	.0	.0		10.0	8.2	9.2	18.3	14.1	12.3	10.1	15.1	5.8	7.9
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	7.5							7.5	.0	9.2	3.8	9.6	7.2	7.3	1.9	4.7	6.8
TOT OBS	1081	3100	1773	83	3	0	6040		8.5	1196	52	1223	389	1484	106	1222	368
TOT PCT	17.9	51.3	29.4	1.4	*	.0		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)					TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)			
	0-6	7-16	17-27	28-40	41+				00	06	12	18
N	9.8	24.8	4.9	.1	.0	39.6	10.5	32.1	43.2	45.4	35.9	
NE	6.6	13.7	2.6	*	.0	22.9	10.1	24.9	19.8	20.9	26.6	
E	3.5	3.0	.3	*	.0	6.8	7.5	8.9	3.8	6.1	8.9	
SE	2.6	1.0	*	.0	.0	3.6	3.6	4.3	2.0	2.7	5.5	
S	2.6	1.2	*	.0	.0	3.8	3.7	4.2	2.5	2.9	5.8	
SW	2.1	1.1	.1	.0	.0	3.2	6.1	4.3	2.6	2.2	4.0	
W	1.7	.9	*	.0	.0	2.6	5.9	2.8	3.4	2.3	1.9	
NW	4.2	5.3	.5	*	.0	10.0	8.2	9.6	13.7	10.5	6.3	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	7.5					7.5	.0	9.0	9.0	6.9	5.2	
TOT OBS	2441	3077	512	10	0	6040		1248	1612	1590	1590	
TOT PCT	40.4	50.9	8.5	.2	.0	100.0		100.0	100.0	100.0	100.0	

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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)				MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47	48+			
0000Z	9.0	12.0	50.4	27.6	1.0	.0	.0	8.0	100.0	1248
0600Z	9.0	8.9	50.9	29.9	1.2	.1	.0	8.6	100.0	1612
1200Z	6.9	9.7	51.3	30.2	1.9	.0	.0	8.8	100.0	1590
1800Z	5.2	11.5	52.6	29.3	1.3	.1	.0	8.7	100.0	1590
TOT	490	631	3100	1773	83	3	0	8.5		6040
PCT	7.5	10.4	51.3	29.4	1.4	*	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBS CD	TOTAL OBS	MEAN CLOUD COVER
N	18.3	5.2	8.9	5.3		3.3
NE	11.7	4.1	4.7	3.3		3.2
E	3.2	1.7	1.6	.9		3.5
SE	.9	.6	1.3	.6		4.6
S	1.2	.6	1.5	1.0		4.6
SW	1.1	.5	1.2	.8		4.5
W	1.0	.5	.6	.6		4.0
NW	5.1	1.1	1.9	1.3		3.1
VAR	.0	.0	.0	.0		.0
CALM	3.3	.9	2.0	1.5		3.8
TOT OBS	1378	457	715	462	3012	3.5
TOT PCT	45.8	15.2	23.7	15.3	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8)
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+ NH	NH <5/8 ANY HGT	TOTAL OBS
N	.1	*	.1	1.0	2.0	1.4	.6	.2	.2	1.0	31.1	
NE	.1	.0	.1	.6	1.0	.8	.3	.2	.2	.7	19.9	
E	.0	.0	.1	.2	.5	.3	.1	*	*	.2	6.0	
SE	*	*	*	.1	.3	.2	.1	.1	*	*	2.3	
S	.0	.0	.1	.3	.6	.3	*	*	*	.1	2.7	
SW	.0	.0	*	.1	.6	.2	.1	.1	*	*	2.4	
W	.0	.0	.0	.3	.3	.1	.4	.0	*	.1	1.8	
NW	.1	.0	*	.4	.5	.2	.1	.2	*	.1	7.6	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.8	.0	.3	.7	.3	.2	*	.1	.1	5.8		
TOT OBS	3	2	12	107	195	120	48	29	22	70	2399	3012
TOT PCT	.3	.1	.4	3.6	6.5	4.0	1.6	1.0	.7	2.3	79.6	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE
OF CEILING HEIGHT (NH >4/8) AND VSBY (NH)

CEILING (FEET)	VSBY (NH)							
	>10	>5	>2	>1	>1/2	>1/4	>50YD	>0
>6500	2.1	2.9	3.0	3.0	3.0	3.0	3.0	3.0
>5000	2.8	3.8	3.9	3.9	3.9	3.9	3.9	3.9
>3500	4.0	5.4	5.5	5.5	5.5	5.5	5.5	5.5
>2000	6.6	9.3	9.6	9.6	9.6	9.6	9.6	9.6
>1000	11.1	15.6	16.0	16.0	16.0	16.0	16.0	16.0
>600	13.6	19.1	19.6	19.7	19.7	19.7	19.7	19.7
>300	13.7	19.5	20.0	20.0	20.0	20.0	20.0	20.0
>150	13.8	19.6	20.1	20.1	20.1	20.1	20.1	20.1
>0	13.8	19.6	20.2	20.3	20.3	20.3	20.3	20.3
TOTAL	436	618	637	640	640	640	640	640

TOTAL NUMBER OF OBS: 3150

PCT FREQ NH <5/8: 79.7

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	OBS CD	TOTAL OBS
36.8	17.4	11.5	8.3	5.0	3.8	4.3	4.3	6.5	.2	3330

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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	*	.0	.0	.0	.0	.0	.0	.0	.0	*	
	NO PCP	*	*	.0	.0	.0	.0	.0	.0	.0	.0	*	
	TOT %	*	.1	.0	.0	.0	.0	.0	.0	.0	.0	.1	
1/2<1	PCP	*	.0	.0	.0	.0	.0	.0	*	.0	.0	*	
	NO PCP	.1	.1	*	.0	.0	.0	.0	.1	.0	.0	.4	
	TOT %	.1	.1	*	.0	.0	.0	.0	.1	.0	.0	.4	
1<2	PCP	.0	.0	.0	.0	*	.0	.0	.0	.0	.0	*	
	NO PCP	.6	.4	.1	.1	*	.0	*	.1	.0	.1	1.4	
	TOT %	.6	.4	.1	.1	.1	.0	*	.1	.0	.1	1.5	
2<5	PCP	*	*	.0	.0	.0	*	.0	*	.0	.0	.1	
	NO PCP	1.2	.5	.1	*	.0	.1	.1	.4	.0	.2	2.5	
	TOT %	1.2	.5	.1	*	.0	.1	.1	.4	.0	.2	2.6	
5<10	PCP	.1	.1	*	.1	.1	.1	.1	.1	.0	*	.7	
	NO PCP	9.6	5.0	1.4	.9	.9	.8	.6	2.6	.0	2.2	24.5	
	TOT %	9.7	5.7	1.5	1.0	.9	1.0	.7	2.6	.0	2.2	25.2	
10+	PCP	*	.0	*	*	.1	*	*	.1	.0	*	.3	
	NO PCP	27.2	16.8	5.2	2.4	3.1	2.4	1.8	6.6	.0	4.5	69.9	
	TOT %	27.2	16.8	5.2	2.4	3.1	2.5	1.8	6.7	.0	4.5	70.2	
TOT OBS		4493											
TOT PCT		38.9	23.6	6.9	3.6	4.1	3.5	2.6	9.9	.0	7.0	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	*	*	*	*	.0	*	
	11-21	*	*	.0	.0	.0	.0	.0	*	.0	.0	.1	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	*	*	.0	.0	.0	*	*	*	.0	.0	.1	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	*	.0	*	*	
	4-10	*	.1	*	.0	.0	.0	.0	.1	.0	.0	.2	
	11-21	.1	*	.0	.0	.0	.0	.0	*	.0	.0	.1	
	22+	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	*	
	TOT %	.1	.1	*	.0	.0	.0	.0	.1	.0	*	.4	
1<2	0-3	.1	*	.0	.1	*	.0	*	*	.0	.1	.3	
	4-10	.2	.2	.1	.1	*	.0	*	*	.0	.6	.6	
	11-21	.3	.1	*	*	*	.0	.0	*	.0	.6	.6	
	22+	*	*	.0	.0	.0	.0	.0	.0	.0	.1	*	
	TOT %	.6	.3	.1	.1	*	.0	.1	.1	.0	.1	1.5	
2<5	0-3	.1	.1	*	*	.0	*	*	.1	.0	.2	.7	
	4-10	.6	.3	.1	*	.0	*	*	.2	.0	1.2	.9	
	11-21	.5	.3	*	.0	.0	.0	.0	.1	.0	.9	.9	
	22+	.1	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1	
	TOT %	1.3	.6	.1	*	.0	.1	.1	.4	.0	.2	2.9	
5<10	0-3	.7	.5	.5	.3	.3	.2	.2	.4	.0	2.4	5.6	
	4-10	4.9	2.9	.6	.5	.5	.6	.4	1.4	.0		11.9	
	11-21	3.6	1.9	.2	.1	.1	.1	*	.7	.0		6.7	
	22+	.3	.2	.0	.0	.0	.0	.0	*	.0		.5	
	TOT %	9.5	5.5	1.4	.9	.9	.9	.6	2.5	.0	2.4	24.7	
10+	0-3	1.3	1.0	.7	.7	.9	.5	.5	.9	.0	4.6	11.1	
	4-10	14.1	8.6	3.3	1.6	1.8	1.8	1.2	4.5	.0		36.9	
	11-21	12.0	6.4	1.0	.1	.2	.2	.1	1.5	.0		21.5	
	22+	.5	.3	.1	.0	.0	.0	*	.1	.0		.9	
	TOT %	27.9	16.2	5.0	2.4	3.0	2.4	1.8	7.0	.0	4.6	70.4	
TOT OBS		5056											
TOT PCT		39.5	22.8	6.6	3.5	3.9	3.4	2.5	10.3	.0	7.4	100.0	

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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NM >4/8) AND
OCCURRENCE OF NM <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NM <5/8 ANY MGT	TOTAL OBS
00003	.1	.0	.0	3.2	5.6	3.7	1.7	.9	1.2	2.0	18.6	81.4	748
06009	.0	.0	.1	2.9	3.8	2.5	1.3	.5	.3	1.3	12.6	87.4	791
12015	.5	.1	.8	4.0	8.5	4.2	1.7	.9	.8	1.5	23.2	76.8	950
18021	.3	.1	.4	3.8	6.4	5.1	1.4	1.3	.4	4.2	23.3	76.7	784
TOT	8	2	12	115	203	128	50	30	22	72	642	2631	3273
PCT	.2	.1	.4	3.5	6.2	3.9	1.5	.9	.7	2.2	19.6	80.4	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.1	.5	1.2	3.7	25.6	69.0	1108
06009	.0	.5	1.5	1.7	23.2	73.1	1396
12015	.1	.4	1.4	3.5	25.1	69.4	1400
18021	.3	.5	1.9	2.7	26.5	68.1	1388
TOT	7	25	81	151	1327	3701	5292
PCT	.1	.5	1.5	2.9	25.1	69.9	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR
CEILING HGT (FEET, NM >4/8), BY HOUR

HOUR (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND 5+	NM <5/8 AND 5+	TOTAL OBS
00003	.0	.0	5.3	15.8	78.9	717
06009	.0	.1	4.4	9.8	85.9	758
12015	.5	1.6	7.6	17.6	74.7	918
18021	.3	.8	5.9	18.6	75.4	757
TOT	7	22	186	490	2474	3150
PCT	.2	.7	5.9	15.6	78.5	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
95/99	.0	.0	.0	*	.0	.0	.0	.0	1	*
90/94	.0	.0	.0	*	.1	.1	.0	.0	8	.2
85/89	.0	.0	.1	.4	1.5	2.2	.6	.1	197	4.9
80/84	.0	.0	.0	.1	3.5	14.1	15.6	3.3	1472	36.7
75/79	.0	.0	.0	*	.4	7.6	27.2	18.7	2084	52.0
70/74	.0	.0	.0	.0	.0	.2	2.1	3.9	249	6.2
TOTAL	0	0	3	25	221	969	1828	965	4011	100.0
PCT	.0	.0	.1	.6	5.5	24.2	45.6	24.1		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
95/99	*	.0	.0	.0	.0	.0	.0	*	.0	.0
90/94	*	*	*	*	*	.0	.0	*	.0	.0
85/89	1.5	1.2	.6	.4	.4	.3	.2	.3	.0	.2
80/84	11.1	9.8	3.2	2.0	2.0	1.6	.9	3.1	.0	3.1
75/79	22.1	11.6	3.1	1.8	1.6	1.4	1.4	5.3	.0	3.7
70/74	3.2	1.8	.2	*	.1	.1	.1	.5	.0	.2
TOTAL	37.9	24.4	7.2	4.2	4.1	3.3	2.5	9.1	.0	7.2

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	90	86	84	79	75	73	64	79.3	1293
06009	90	83	82	77	73	71	69	77.4	1712
12015	87	84	82	78	73	71	67	77.6	1642
18021	96	89	86	81	75	72	70	80.7	1634
TOT	96	87	84	79	73	71	64	78.7	6281

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-39	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	.5	5.1	26.1	49.2	19.0	83	915
06009	.0	.2	2.9	17.3	45.9	33.8	86	1072
12015	.0	.3	3.3	13.7	50.3	32.3	86	1181
18021	.0	1.7	10.4	39.5	37.2	11.2	79	1063
TOT	0	29	228	1006	1931	1037	83	4231

PERIOD: (PRIMARY) 1933-1978
(OVER-ALL) 1861-1978

MARCH

AREA 0036 GULF OF PANAMA
6.8N 79.8W

TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	69 72	73 76	77 80	81 84	85 88	89 92	>92	TOT	W FOG	NO FOG
20/22	.0	.0	.0	.0	.0	*	.0	1	.0	*
17/19	.0	.0	*	.0	.0	*	.0	2	.0	*
14/16	.0	.0	*	.1	.1	*	*	10	.0	.2
11/13	.0	.0	.1	.3	.3	.1	.0	34	*	.7
9/10	.0	*	.2	.6	.3	.1	.0	64	.0	1.3
7/8	.0	.3	1.1	1.3	.7	.1	.0	148	.1	3.3
6	.0	.4	.9	1.2	.3	.1	.0	124	.1	2.8
5	.1	.6	1.5	1.4	.6	*	.0	179	.1	4.0
4	.2	1.7	3.2	1.9	.5	*	*	323	.3	7.2
3	.1	2.2	3.3	1.8	.4	.0	.0	335	.4	7.4
2	.4	2.9	5.2	3.0	.4	.0	.0	511	.5	11.4
1	.2	3.2	6.2	2.8	.2	.0	.0	543	.8	11.8
0	.2	2.7	8.1	3.7	.3	*	.0	644	1.0	13.9
-1	.1	1.6	6.0	2.7	.1	.0	.0	450	.4	10.1
-2	.1	1.4	5.0	1.7	.1	.0	.0	359	.3	8.0
-3	.1	1.0	2.8	1.1	*	.0	.0	213	.1	4.8
-4	.1	1.0	1.9	.3	.0	.0	.0	143	.1	3.3
-5	*	.4	1.0	.4	.0	.0	.0	80	*	1.8
-6	*	.4	.8	.1	.0	.0	.0	56	*	1.3
-7/-8	*	.5	.7	*	.0	.0	.0	53	.0	1.2
-9/-10	.0	.2	.2	.0	.0	.0	.0	14	.0	.3
-11/-13	*	.2	*	.0	.0	.0	.0	11	*	.2
TOTAL	70		2078		198		2	4297	194	4103
PCT	1.6	20.5	48.4	24.2	4.6	.6	*	100.0	4.5	95.5

PERIOD: (OVER-ALL) 1963-1978

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.8	2.3	.3	.0	.0	.0	3.5	.7	1.5	*	.0	.0	.0	2.2
1-2	.7	10.6	5.1	.0	.0	.0	16.5	.6	7.9	3.6	.0	.0	.0	12.2
3-4	.1	3.9	7.2	.5	.0	.0	11.6	.1	3.0	4.2	*	.0	.0	7.3
5-6	.0	1.0	3.0	.1	.0	.0	4.2	.0	.5	2.4	.1	.0	.0	2.9
7	*	.0	1.3	.2	.0	.0	1.6	.0	.0	.9	.1	.0	.0	1.0
8-9	.0	.0	.3	.0	.0	.0	.3	.0	.0	.3	.1	.0	.0	.4
10-11	.0	.0	.0	*	.0	.0	*	.0	.0	.0	*	.0	.0	*
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.1
13-16	.0	.0	*	.0	.0	.0	*	.0	.0	*	.0	.0	.0	*
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.7	17.8	17.3	.8	.0	.0	37.7	1.4	12.9	11.4	.5	.0	.0	26.1

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.9	.8	.0	.0	.0	.0	1.7	.3	.3	.0	.0	.0	.0	.7
1-2	.3	3.0	.4	.0	.0	.0	3.8	.4	1.3	.1	.0	.0	.0	1.8
3-4	.1	.9	.5	.0	.0	.0	1.5	.0	.3	.1	.0	.0	.0	.4
5-6	.0	.1	.3	.1	.0	.0	.4	.0	.1	.0	.0	.0	.0	.1
7	.0	.0	.1	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.1	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.3	4.8	1.4	.1	.0	.0	7.5	.7	2.1	.1	.0	.0	.0	3.0

PERIOD: (OVER-ALL) 1963-1978

MARCH

AREA 0036 GULF OF PANAMA
6.8N 79.8W

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.2	.6	.1	.0	.0	.0	.9	.5	.6	.0	.0	.0	.0	1.1
1-2	.3	1.9	.3	.0	.0	.0	2.5	.1	1.8	.1	.0	.0	.0	2.0
3-4	.0	.5	.1	.0	.0	.0	.6	.1	.4	.1	.0	.0	.0	.6
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.1
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.5	3.0	.5	.0	.0	.0	4.0	.7	2.8	.3	.0	.0	.0	3.8

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.1	.3	.0	.0	.0	.0	.3	.5	.5	.1	.0	.0	.0	1.1	
1-2	.2	.7	.0	.0	.0	.0	1.0	.3	2.8	1.1	.0	.0	.0	4.2	
3-4	.2	.3	.1	.1	.0	.0	.6	.1	1.6	.8	.1	.0	.0	2.5	
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.1	.5	.1	.0	.0	.8	
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.4	1.3	.2	.1	.0	.0	1.9	.9	5.1	2.4	.2	.0	.0	8.6	92.5

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	13.1	6.9	.5	.0	.0	.0	20.5	
1-2	3.9	29.5	10.4	.0	.0	.0	43.7	
3-4	.5	10.6	12.5	.6	.0	.0	24.2	
5-6	.0	1.7	6.1	.3	.0	.0	8.1	
7	.1	.0	2.2	.3	.0	.0	2.6	
8-9	.0	.0	.6	.1	.0	.0	.8	
10-11	.0	.0	.0	.1	.0	.0	.1	
12	.0	.0	.0	.1	.0	.0	.1	
13-16	.0	.0	.1	.0	.0	.0	.1	
17-19	.0	.1	.0	.0	.0	.0	.1	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	17.5	48.7	32.2	1.5	.0	.0	100.0	1718

PERIOD: (OVER-ALL) 1949-1978

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	7.1	22.7	18.5	5.6	1.7	.5	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1559	3
6-7	.1	2.7	5.5	4.7	2.1	.7	.1	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	444	4
8-9	.0	.8	1.9	1.2	.9	.2	.3	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	147	5
10-11	.0	1.2	.5	.5	.1	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	74	4
12-13	.0	.0	1.0	.4	.5	.0	.1	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	59	5
>13	.0	.0	.0	.4	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	17	6
INDET	8.9	3.3	3.3	.8	.3	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	462	1
TOTAL	447	848	846	377	160	47	20	5	8	4	0	0	0	0	0	0	0	0	0	2762	3
PCT	16.2	30.7	30.6	13.6	5.8	1.7	.7	.2	.3	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	

PERIOD: (PRIMARY) 1932-1977
(OVER-ALL) 1862-1977

APRIL

AREA 0036 GULF OF PANAMA
6.8N 79.9W

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA									
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA		
N	.3	.4	.5	.0	.0	.0	.0	1.1	1.1	2.2	1.1	.0	4.6	.1	89.9		
NE	1.5	.6	.4	.0	.0	.0	.0	2.6	.7	1.9	2.9	.0	4.9	.0	87.5		
E	1.7	1.6	.5	.0	.0	.0	.0	3.8	1.5	3.7	2.0	.0	4.7	.0	84.9		
SE	1.2	3.9	.7	.0	.0	.0	.0	5.7	2.1	3.1	2.0	.0	1.0	.5	85.5		
S	2.7	2.1	.3	.0	.0	.0	.0	5.1	2.7	3.7	.8	.0	2.3	.0	85.7		
SW	3.2	2.7	1.3	.0	.0	.0	.0	6.9	3.8	5.6	.1	.0	3.3	.0	81.1		
W	1.8	1.4	.3	.0	.0	.0	.0	3.3	2.3	6.0	2.6	.0	5.2	.0	80.8		
NW	1.8	1.4	.2	.0	.0	.0	.0	3.5	1.3	3.3	1.5	.0	3.3	.0	87.0		
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
CALM	.6	1.2	.9	.0	.0	.0	.0	2.7	1.8	4.7	2.7	.0	8.6	.3	79.2		
TOT PCT	1.3	1.2	.5	.0	.0	.0	.0	3.0	1.6	3.2	1.7	.0	4.5	.1	86.3		
TOT OBS:	4041																

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA									
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA		
0000	.8	.6	.5	.0	.0	.0	.0	1.8	1.0	2.2	2.0	.0	7.2	.0	85.8		
0600	.8	1.0	.3	.0	.0	.0	.0	2.1	1.8	8.3	2.1	.0	3.4	.0	82.8		
1200	2.1	1.5	.5	.0	.0	.0	.0	4.1	1.7	1.9	2.0	.0	4.4	.2	86.1		
1800	1.8	1.9	.8	.0	.0	.0	.0	4.4	1.6	.4	1.7	.0	4.1	.1	87.9		
TOT PCT	1.4	1.3	.5	.0	.0	.0	.0	3.2	1.6	3.2	2.0	.0	4.6	.1	85.7		
TOT OBS:	4291																

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	48+					00	03	06	09	12	15	18	21
N	2.9	16.3	11.2	.4	.0	.0		30.8	9.8		24.2	32.5	33.2	40.0	37.2	34.4	25.0	26.6
NE	2.0	11.1	5.1	.3	.0	.0		18.5	9.0		20.2	7.5	13.9	14.2	18.7	13.4	22.7	21.5
E	1.6	5.0	1.3	*	.0	.0		8.0	7.1		9.7	6.7	5.3	3.7	6.5	7.8	11.0	11.5
SE	1.0	3.1	.4	*	.0	.0		4.5	6.1		4.9	3.3	3.6	2.4	3.7	4.0	7.0	3.9
S	1.8	4.7	.7	*	.0	.0		7.2	6.3		7.6	3.3	5.7	4.3	6.2	6.1	11.3	5.1
SW	1.0	3.9	.5	*	.0	.0		5.5	6.4		7.0	12.5	5.6	4.4	3.8	5.2	6.4	4.4
W	1.1	3.9	.5	.0	.0	.0		5.5	6.4		6.3	4.2	8.6	4.1	3.7	5.4	3.6	8.6
NW	1.3	7.4	2.5	.1	.0	.0		11.2	8.3		11.1	23.3	14.0	17.4	10.9	17.9	5.5	12.8
VAR	.0	.0	.0	.0	.0	.0		.0	.0		.0	.0	.0	.0	.0	.0	.0	.0
CALM	8.7							8.7	.0		8.9	6.7	10.0	9.4	9.3	5.7	7.5	5.6
TOT OBS	1148	2957	1184	50	0	0	5339		7.6		1038	30	1105	339	1316	106	1101	304
TOT PCT	21.5	55.4	22.2	.9	.0	.0		100.0			100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)					TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)				
	0-6	7-16	17-27	28-40	41+				00	06	12	18	21
N	9.2	18.7	2.9	.1	.0		30.8	9.8	24.5	34.8	37.0	25.3	
NE	6.7	10.4	1.4	*	.0		18.5	9.0	19.9	14.0	18.3	22.4	
E	4.2	3.6	.1	.0	.0		8.0	7.1	9.6	4.9	6.6	11.1	
SE	2.9	1.6	*	.0	.0		4.5	6.1	4.9	3.3	3.7	6.3	
S	4.5	2.6	.1	*	.0		7.2	6.3	7.5	5.4	6.2	9.9	
SW	3.3	2.1	.1	.0	.0		5.5	6.4	7.1	5.3	3.9	6.0	
W	3.4	2.1	.1	.0	.0		5.5	6.4	6.3	7.6	3.9	4.6	
NW	4.9	5.6	.7	.0	.0		11.2	8.3	11.5	14.8	11.4	7.1	
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	
CALM	8.7						8.7	.0	8.8	9.9	9.0	7.1	
TOT OBS	2555	2491	286	7	0	5339		7.6	1068	1444	1422	1405	
TOT PCT	47.9	46.7	5.4	.1	.0		100.0		100.0	100.0	100.0	100.0	

PERIOD: (PRIMARY) 1932-1977
(OVER-ALL) 1862-1977

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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)			48+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47				
00003	8.8	14.1	55.9	19.8	1.4	.0	.0	7.4	100.0	1068
06009	9.9	11.9	54.2	22.8	1.2	.0	.0	7.7	100.0	1444
12019	9.0	11.0	56.0	23.3	.6	.0	.0	7.7	100.0	1422
18021	7.1	14.4	55.7	22.2	.6	.0	.0	7.5	100.0	1405
TOT	465	683	2957	1184	50	0	0	7.6		5339
PCT	8.7	12.8	55.4	22.2	.9	.0	.0		100.0	

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	11.5	6.0	7.3	4.3		3.7
NE	6.9	3.5	5.2	3.0		4.0
E	1.9	1.9	3.3	1.9		4.9
SE	.9	.5	2.1	1.6		5.6
S	1.3	1.4	3.9	2.3		5.5
SW	1.4	1.0	2.4	1.6		5.1
W	1.3	.9	1.8	1.6		5.0
NW	3.1	1.6	2.4	1.8		4.1
VAR	.0	.0	.0	.0		.0
CALM	2.4	1.6	2.5	2.1		4.6
TOT OBS	848	509	852	553	2762	4.4
TOT PCT	30.7	18.4	30.8	20.0	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8)
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH <5/8 ANY HGT	TOTAL OBS
N	.1	.0	.2	1.4	1.5	1.1	.7	.3	.1	.7	22.8	
NE	.0	.0	.2	.8	1.3	1.0	.5	.1	.1	.2	14.2	
E	.0	.0	.2	.7	.9	.4	.1	.0	.1	.2	6.2	
SE	.0	.0	.1	.3	.6	.4	.2	.1	.1	.1	3.0	
S	.0	.0	.3	.9	1.2	.6	.4	.0	.1	.2	5.1	
SW	.0	.0	.1	.7	.7	.3	.1	.1	.1	.2	4.0	
W	.0	.0	.0	.6	.7	.4	.1	.0	.1	.1	3.6	
NW	.0	.0	.1	.6	.7	.4	.4	.1	.0	.2	6.5	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.1	.0	.1	.7	.7	.2	.1	.0	.1	.1	6.4	
TOT OBS	9	1	39	183	231	134	76	25	24	58	1982	2762
TOT PCT	.3	.0	1.4	8.6	8.4	4.9	2.8	.9	.9	2.1	71.8	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE
OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)							
	= OR >10	= OR >5	= OR >2	= OR >1	= OR >1/2	= OR >1/4	= OR >50YD	= OR >0
= OR >4500	2.2	2.9	5.0	3.0	3.0	3.0	3.0	3.0
= OR >5000	3.0	3.9	4.0	4.0	4.0	4.0	4.0	4.0
= OR >3500	5.2	6.5	6.7	6.7	6.7	6.7	6.7	6.7
= OR >2000	8.7	11.3	11.5	11.5	11.5	11.5	11.5	11.5
= OR >1000	14.7	19.5	19.9	19.9	19.9	19.9	19.9	19.9
= OR >600	19.4	25.9	26.5	26.5	26.5	26.5	26.5	26.5
= OR >300	20.1	27.1	27.9	28.0	28.0	28.0	28.0	28.0
= OR >150	20.2	27.1	27.9	28.0	28.0	28.0	28.0	28.0
= OR >0	20.3	27.4	28.2	28.3	28.3	28.3	28.3	28.3
TOTAL	588	795	819	821	822	822	822	822

TOTAL NUMBER OF OBS 2903

PCT FREQ NH <5/8 71.7

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8 OBSCD	TOTAL OBS
23.1	15.5	14.3	10.5	7.9	5.2	6.5	6.0	10.8	3067

PERIOD: (PRIMARY) 1932-1977
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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF PRECIPITATION WITH VARYING VALUES OF VISIBILITY													
VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	*	*
	NO PCP	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	*	.1
	TOT %	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	*	.1
1/2<1	PCP	.0	.0	.0	.0	*	*	.0	.0	.0	.0	*	*
	NO PCP	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	*	.1
	TOT %	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	* .0	*	.2
1<2	PCP	.0	*	.0	.0	.0	.0	.0	.0	.0	.0	*	*
	NO PCP	.2	*	*	.0	.0	*	*	*	*	.0	*	.4
	TOT %	.2	.1	*	.0	.0	*	*	*	.0	*	*	.4
2<5	PCP	.0	.1	.1	*	*	*	*	.0	.0	*	*	.3
	NO PCP	.3	.2	.1	.2	.2	*	.0	.1	.0	.3	.1	1.4
	TOT %	.3	.3	.2	.2	.2	.1	*	.1	.0	.3	1.8	
5<10	PCP	.1	.2	.1	.2	.1	.2	.1	.2	.0	.1	.1	1.4
	NO PCP	7.1	3.8	2.0	1.2	1.3	1.2	1.0	2.9	.0	2.3	22.8	
	TOT %	7.2	4.0	2.1	1.4	1.4	1.4	1.1	3.2	.0	2.4	24.2	
10+	PCP	.2	.1	.1	.1	.2	.2	*	.1	.0	.1	1.1	
	NO PCP	22.8	13.4	5.7	3.1	5.8	4.4	4.3	7.3	.0	5.3	72.2	
	TOT %	23.0	13.5	5.8	3.2	6.0	4.6	4.3	7.4	.0	5.6	73.3	
TOT OBS													
TOT PCT													
		30.8	17.9	8.2	4.7	7.6	6.1	5.4	10.7	.0	8.4	100.0	4003

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED WITH VARYING VALUES OF VISIBILITY													
VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	*	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1	
	4-10	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.1	*	.0	.0	.0	.0	.0	*	.0	.1	.2	
1/2<1	0-3	*	.0	.0	.0	.0	.0	*	.0	.0	*	.1	
	4-10	*	*	.0	.0	*	*	.0	*	.0	*	.1	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	*	*	.0	.0	*	*	.0	*	.0	*	.2	
1<2	0-3	*	.0	*	*	.0	*	*	*	.0	.1	.3	
	4-10	.1	*	*	*	*	*	.0	*	.0	*	.2	
	11-21	*	.0	.0	.0	.0	.0	.0	.0	.0	*	*	
	22+	*	*	.0	.0	.0	.0	.0	.0	.0	*	*	
	TOT %	.2	.1	.1	*	*	*	*	*	.0	.1	.6	
2<5	0-3	*	.1	.1	.1	.1	*	.0	*	.0	.3	.6	
	4-10	.4	.4	.2	.1	.1	.1	.1	.1	.0	1.5		
	11-21	.2	.1	*	*	*	*	.1	.1	.0	.4		
	22+	.0	*	.0	.0	.0	.0	.0	.0	.0	*		
	TOT %	.6	.5	.3	.2	.2	.1	.1	.2	.0	.3	2.5	
5<10	0-3	.7	.5	.6	.3	.4	.3	.2	.4	.0	2.4	5.8	
	4-10	4.0	2.0	1.1	.9	.8	.9	.9	2.0	.0		12.6	
	11-21	2.3	1.1	.3	.1	.1	.1	.1	.7	.0		4.8	
	22+	.1	.1	.0	.0	.0	.0	.0	*	.0		.2	
	TOT %	7.1	3.7	2.0	1.3	1.3	1.3	1.1	3.2	.0	2.4	23.4	
10+	0-3	2.0	1.3	.8	.7	1.3	.8	.7	.8	.0	5.6	14.0	
	4-10	11.7	8.2	3.6	2.1	4.0	3.2	3.1	5.0	.0		40.9	
	11-21	9.0	3.8	1.1	.3	.6	.5	.4	1.8	.0		17.6	
	22+	.3	.2	*	*	*	*	.0	.1	.0		.7	
	TOT %	22.9	13.5	5.5	3.2	5.9	4.5	4.3	7.7	.0	5.6	79.2	
TOT OBS													
TOT PCT													
		30.9	17.9	7.8	4.7	7.5	5.9	5.6	11.2	.0	8.5	100.0	4481

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PERIOD: (PRIMARY) 1932-1977
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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NM >4/8) AND
OCCURRENCE OF NM <5/8 BY HOUR

HOURL (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL OBS	NM <5/8 ANY MGT	TOTAL OBS
00603	.4	.0	1.2	4.6	6.7	4.9	3.1	1.0	1.0	2.5	23.8	74.2	667
06609	.6	.1	1.0	5.2	7.9	4.0	1.5	1.0	.6	1.8	23.6	76.4	725
12615	.2	.0	1.6	8.0	10.0	4.7	2.7	1.3	1.0	1.2	30.8	69.2	891
18621	.0	.0	1.8	7.0	7.4	5.0	3.0	.6	.7	2.9	28.3	71.7	727
TOT	9	1	42	191	245	140	78	30	25	62	823	2187	3010
PCT	.3	.4	1.4	6.3	8.1	4.7	2.6	1.0	.8	2.1	27.3	72.7	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOURL (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00603	.0	.2	.7	2.3	25.9	70.9	962
06609	.1	.2	.6	1.9	25.9	71.3	1276
12615	.2	.2	.5	3.3	20.9	74.9	1278
18621	.4	.0	.7	2.5	24.4	71.9	1218
TOT	8	8	31	119	1143	3425	4734
PCT	.2	.2	.7	2.5	24.1	72.3	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR
CEILING HGT (FEET, NM >4/8) BY HOUR

HOURL (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND 5+	NM <5/8 AND 5+	TOTAL OBS
00603	.5	1.7	7.3	20.0	72.7	641
06609	.6	1.7	7.7	17.3	75.0	699
12615	.3	2.0	12.1	21.1	66.8	859
18621	.0	2.0	10.5	19.5	70.0	704
TOT	10	54	279	567	2057	2903
PCT	.3	1.9	9.6	19.5	70.9	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
95/99	.0	.0	.0	.1	.0	*	.0	.0	3	.1
90/94	.0	.0	.0	.3	.2	.1	.1	.0	21	.6
85/89	.0	.0	.0	.5	1.5	3.3	.7	.2	210	6.0
80/84	.0	.0	*	.1	2.3	15.5	28.0	6.4	1845	52.4
75/79	.0	.0	.0	.0	.1	3.5	20.1	16.2	1403	39.8
70/74	.0	.0	.0	.0	.0	.1	.2	.9	39	1.1
65/69	.0	.0	.0	.0	.0	.0	*	*	2	.1
TOTAL	0	0	1	25	143	789	1731	834	3523	100.0
PCT	.0	.0	*	.7	4.1	22.4	49.1	23.7		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
95/99	.0	.1	*	.0	.0	.0	.0	.0	.0	.0
90/94	.1	.2	.1	*	.1	*	*	*	.0	.1
85/89	1.4	1.2	.8	.4	.6	.4	.3	.5	.0	.4
80/84	14.4	10.7	4.7	2.5	4.3	3.4	3.1	4.8	.0	4.3
75/79	12.7	7.1	3.1	1.8	3.1	2.1	1.7	4.6	.0	3.7
70/74	.7	.2	*	.0	*	.0	*	.1	.0	.1
65/69	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0
TOTAL	29.3	19.3	8.7	4.9	8.1	5.9	5.2	10.0	.0	8.5

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOURL (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00603	91	86	84	80	76	73	72	80.3	1133
06609	89	84	82	79	75	73	70	78.9	1523
12615	90	85	82	79	75	73	69	79.0	1472
18621	99	91	88	82	77	75	68	82.0	1473
TOT	99	88	85	80	75	73	68	80.0	5601

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOURL (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00603	.0	.4	3.0	23.2	53.1	20.3	84	797
06609	.0	.1	1.3	12.7	52.5	33.4	86	977
12615	.0	.1	1.9	15.1	51.1	31.9	86	1036
18621	.0	2.6	9.9	39.7	38.6	9.2	79	941
TOT	0	29	150	839	1828	905	84	3731

PERIOD: (PRIMARY) 1932-1977
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TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	65 68	69 72	73 76	77 80	81 84	85 88	89 92	>92	TOT	W FOG	WD FOG
20/22	.0	.0	.0	.0	.0	.0	.0	*	1	.0	*
17/19	.0	.0	.0	.0	.0	*	.0	.1	3	.0	-1
14/16	.0	.0	.0	.0	*	*	*	*	4	.0	-1
11/13	.0	.0	.0	*	.1	.3	.2	.1	27	*	.7
9/10	.0	.0	.0	.2	.4	.4	.3	.1	52	.0	1.4
7/8	.0	.0	.0	.3	.6	.7	.2	.0	68	.0	1.8
6	.0	.0	.2	.5	.9	.3	*	.0	70	*	1.8
5	.0	.0	.3	.8	1.4	.9	.1	.0	129	*	3.3
4	.0	.0	.3	1.4	2.3	.9	.1	.0	192	.1	4.9
3	.0	*	.6	2.1	2.3	.7	.0	.0	221	.1	5.7
2	.0	.1	.9	4.1	4.9	.5	*	.0	403	.3	10.2
1	.0	.1	1.1	3.8	4.9	.5	.0	.0	477	.2	12.2
0	*	.1	1.5	9.4	7.1	.3	.0	.0	707	.4	18.0
-1	.0	.0	.6	8.8	4.3	.1	.0	.0	451	.4	11.3
-2	.0	.0	.9	8.4	3.5	*	.0	.0	417	.2	10.7
-3	.0	*	.4	4.3	1.5	.0	.0	.0	237	.1	6.1
-4	.0	.0	.2	3.0	1.0	*	.0	.0	165	.1	4.2
-5	.0	.0	.3	2.2	.7	*	.0	.0	121	.1	3.1
-6	.0	.1	.3	.8	.1	.0	.0	.0	47	.0	1.2
-7/-8	.0	.0	.2	.8	.1	.0	.0	.0	38	.0	1.0
-9/-10	.0	*	.1	.1	.0	.0	.0	.0	9	.0	.2
-11/-13	.0	.0	.1	.1	.0	.0	.0	.0	5	.0	.1
TOTAL	1		300		1382		34		3844	74	3770
PCT	*	.4	7.8	49.0	36.0	5.8	.9	.2	100.0	1.9	98.1

PERIOD: (OVER-ALL) 1963-1977

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	1.3	1.9	.4	.0	.0	.0	3.6	.8	2.0	.1	.0	.0	.0	2.8
1-2	1.0	8.4	3.4	.0	.0	.0	12.9	.7	7.5	2.3	.0	.0	.0	10.5
3-4	.0	3.2	6.2	.1	.0	.0	9.4	.1	2.3	2.8	.2	.0	.0	5.4
5-6	.0	.5	3.2	.1	.0	.0	3.8	.0	.1	1.1	.1	.0	.0	1.3
7	.0	.0	.9	.1	.0	.0	1.0	.0	.1	.2	.1	.0	.0	.4
8-9	.0	.0	.3	.0	.0	.0	.3	.0	.0	.0	.1	.0	.0	.1
10-11	.0	.0	.0	.1	.0	.0	.1	.0	.0	.1	.1	.0	.0	.1
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	2.3	14.1	14.4	.3	.0	.0	31.1	1.6	12.0	6.5	.5	.0	.0	20.6

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.4	1.1	.0	.0	.0	.0	1.5	.5	.9	*	.0	.0	.0	1.4
1-2	.5	4.4	.9	.0	.0	.0	5.8	.3	2.4	.3	.0	.0	.0	3.1
3-4	.1	1.1	.9	.0	.0	.0	2.2	*	.3	.1	.0	.0	.0	.6
5-6	.0	.1	.4	.1	.0	.0	.5	.0	*	*	.0	.0	.0	.1
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.0	6.7	2.3	.1	.0	.0	10.0	.9	3.8	.4	*	.0	.0	5.1

PERIOD: (OVER-ALL) 1963-1977

APRIL

AREA 0036 GULF OF PANAMA
6.8N 79.9W

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	S							SW							PCT
	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	
<1	.9	1.0	.1	.0	.0	.0	2.0	.3	.8	.0	.0	.0	.0	.0	1.2
1-2	.6	2.4	.4	.0	.0	.0	3.4	.5	2.5	.1	.0	.0	.0	.0	3.1
3-4	.0	.7	.5	.1	.0	.0	1.2	.0	.6	.3	.0	.0	.0	.0	.9
5-6	.0	.1	.0	.0	.0	.0	.1	.0	.1	.1	.1	.0	.0	.0	.2
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.5	4.2	.9	.1	.0	.0	6.7	.8	4.1	.5	.1	.0	.0	.0	5.5

HGT	W							NW							PCT	TOTAL PCT
	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT		
<1	.2	1.0	.0	.0	.0	.0	1.3	.2	1.1	.0	.0	.0	.0	.0	1.4	
1-2	.4	2.0	.1	.0	.0	.0	2.4	.3	3.4	.7	.0	.0	.0	.0	4.4	
3-4	.0	.4	.3	.0	.0	.0	.6	.0	.9	1.1	.1	.0	.0	.0	2.1	
5-6	.0	.1	.1	.0	.0	.0	.2	.0	.1	.2	.0	.0	.0	.0	.3	
7	.0	.0	.1	.0	.0	.0	.1	.0	.0	.1	.0	.0	.0	.0	.1	
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.1	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.6	3.4	.5	.0	.0	.0	4.5	.6	5.5	2.1	.1	.0	.0	.0	8.3	91.8

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	14.9	9.8	.6	.0	.0	.0	25.3	
1-2	5.2	32.0	7.8	.0	.0	.0	45.0	
3-4	.2	9.4	11.5	.3	.0	.0	21.4	
5-6	.0	1.0	4.8	.3	.0	.0	6.1	
7	.0	.1	1.2	.2	.0	.0	1.5	
8-9	.0	.0	.3	.2	.0	.0	.5	
10-11	.0	.0	.1	.1	.0	.0	.2	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	20.3	52.3	26.4	1.1	.0	.0	100.0	1550

PERIOD: (OVER-ALL) 1949-1977

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	7.9	23.1	16.8	5.3	1.0	.4	.2	*	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1370	2
6-7	.1	2.5	5.1	3.8	1.1	.5	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	331	4
8-9	.1	1.1	2.0	1.7	.6	.2	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	144	4
10-11	.0	1.4	.6	.4	.6	.2	.1	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	87	4
12-13	.0	.0	1.5	.4	.2	*	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	35	4
>13	.0	*	.0	.6	.3	.0	.0	.1	*	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	29	7
INDET	10.8	3.2	3.6	1.1	.7	.1	.0	.0	*	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	490	2
TOTAL	473	785	740	336	113	35	11	3	6	4	0	0	0	0	0	0	0	0	0	2506	3
PCT	18.9	31.3	29.5	13.4	4.5	1.4	.4	.1	.2	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	

PERIOD: (PRIMARY) 1934-1977
(OVER-ALL) 1861-1977

MAY

AREA 0036 GULF OF PANAMA
6.7N 79.9W

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

PRECIPITATION TYPE										OTHER WEATHER PHENOMENA					
WIND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
N	4.1	1.0	.4	.0	.0	.0	.0	5.4	2.9	8.0	.7	.0	1.8	.0	82.1
NE	6.3	1.9	.6	.0	.0	.0	.0	8.9	5.0	3.4	.7	.0	1.6	.0	80.7
E	4.8	4.5	1.0	.0	.0	.0	.6	10.9	4.0	6.0	.0	.0	2.2	.0	78.1
SE	6.7	2.5	2.1	.0	.0	.0	.0	11.3	6.5	2.9	.5	.0	.9	.0	78.6
S	6.8	4.5	3.3	.0	.0	.0	.1	14.7	4.6	3.6	1.4	.0	.3	.0	76.0
SW	7.6	5.2	2.2	.0	.0	.0	*	13.1	6.5	5.4	1.2	.1	.6	.0	72.1
W	6.4	3.6	1.7	.0	.0	.0	.0	11.8	2.8	6.7	.8	.0	.3	.0	77.6
NW	5.9	3.0	1.3	.0	.0	.0	.0	10.2	3.1	7.9	1.5	.0	.9	.0	77.3
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	1.7	1.0	1.0	.0	.0	.0	.0	3.6	2.6	5.0	.3	.0	1.3	.0	87.1
TOT PCT	5.9	3.3	1.6	.0	.0	.0	*	10.8	4.2	5.7	.9	*	1.0	.0	77.9
TOT OBS:	4335														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHMR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST BLWG SNOW	NO SIG WEA
00003	2.9	2.1	1.5	.0	.0	.0	.0	6.5	3.1	5.0	1.1	.0	1.5	.0	82.9
06009	4.4	2.3	.7	.0	.0	.0	.0	7.5	4.4	16.7	1.3	.0	.6	.0	70.9
12015	8.5	4.6	1.6	.0	.0	.0	.0	14.6	5.8	3.3	1.0	.1	1.1	.0	75.1
18021	8.2	3.8	2.3	.0	.0	.0	.2	14.5	3.5	.4	1.0	.0	.9	.0	80.1
TOT PCT	6.2	3.3	1.6	.0	.0	.0	*	11.1	4.3	6.0	1.1	*	1.0	.0	77.2
TOT OBS:	4618														

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							48+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)						
	0-3	4-10	11-21	22-33	34-47	00	03					06	09	12	15	18	21	
N	1.9	8.9	4.4	.2	*	.0	15.4	8.8	11.9	17.2	16.8	13.8	20.6	19.7	12.8	9.9		
NE	1.2	4.9	1.7	*	.0	.0	7.8	7.7	6.8	7.0	6.1	5.4	8.6	7.5	9.8	9.5		
E	.7	2.6	.5	.0	.0	.0	3.9	6.8	3.5	5.5	3.8	2.1	3.7	1.9	5.5	3.0		
SE	.9	3.4	.5	*	.0	.0	4.7	6.3	5.6	3.9	2.9	3.2	4.4	1.0	6.5	5.9		
S	2.2	9.1	2.5	.1	.0	.0	13.9	7.5	14.1	7.8	11.8	13.0	10.8	10.8	18.3	20.8		
SW	2.6	12.9	4.9	*	.0	.0	20.5	8.1	22.7	24.2	19.2	18.2	18.3	18.0	22.4	22.2		
W	2.2	10.1	2.5	*	.0	.0	14.7	7.4	17.5	23.4	15.8	16.4	13.2	19.2	11.3	16.3		
NW	1.7	8.1	1.6	.1	.0	.0	11.5	7.3	10.9	4.7	13.9	20.8	12.7	14.2	6.4	9.3		
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
CALM	7.5						7.5	.0	7.0	6.3	9.6	7.2	7.6	7.7	6.9	3.1		
TOT OBS	1180	3388	1051	23	1	0	5643		1212	32	1134	307	1408	104	1154	292		
TOT PCT	20.9	60.0	18.6	.4	*	.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0		

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)			
	0-6	7-16	17-27	28-40	41+						00	06	12	18
N	6.0	8.4	.9	*	.0			15.4	8.8		12.1	16.2	20.6	12.2
NE	3.8	2.7	.3	.0	.0			7.8	7.7		6.8	3.9	8.6	9.8
E	2.2	1.7	*	.0	.0			3.9	6.8		3.5	3.4	3.6	5.0
SE	3.1	1.6	.1	.0	.0			4.7	6.3		5.5	3.0	4.1	6.4
S	6.6	6.7	.5	.0	.0			13.9	7.5		14.0	12.1	10.8	18.8
SW	8.4	11.5	.6	.0	.0			20.5	8.1		22.8	19.0	18.3	22.4
W	7.3	7.0	.4	.0	.0			14.7	7.4		17.6	15.9	13.6	12.3
NW	5.8	5.5	.2	.0	.0			11.5	7.3		10.7	15.4	12.8	7.0
VAR	.0	.0	.0	.0	.0			.0	.0		.0	.0	.0	.0
CALM	7.5							7.5	.0		7.0	9.1	7.6	6.2
TOT OBS	2862	2605	174	2	0	5643			7.2		1244	1441	1512	1446
TOT PCT	50.7	46.2	3.1	*	.0			100.0			100.0	100.0	100.0	100.0

PERIOD: (PRIMARY) 1934-1977
(OVER-ALL) 1861-1977

MAY

AREA 0036 GULF OF PANAMA
6.7N 79.9W

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	11-21	22-33	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
0000	7.0	14.7	60.2	17.7	.4	.0	.0	7.0	100.0	1244
0600	9.1	11.9	61.1	17.6	.3	.0	.0	7.1	100.0	1441
1200	7.6	13.6	58.7	19.8	.3	.0	.0	7.3	100.0	1312
1800	6.2	13.7	60.3	19.2	.6	.1	.0	7.2	100.0	1446
TOT	422	756	3388	1051	23	1	0	7.2		5643
PCT	7.5	13.4	60.0	18.6	.4	*	.0		100.0	

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBS	TOTAL CLOUD COVER	MEAN
N	3.0	3.4	6.9	3.5	5.1	
NE	1.3	1.3	3.4	1.9	5.4	
E	.5	.6	1.9	1.0	5.7	
SE	.4	.8	2.1	1.3	5.8	
S	.9	1.4	5.2	5.1	6.3	
SW	1.0	2.7	8.8	8.1	6.3	
W	.9	2.4	6.1	5.5	6.1	
NH	1.5	1.7	4.3	3.3	5.6	
VAR	.0	.0	.0	.0	5.0	
CALM	1.1	1.1	3.6	1.8	5.5	
TOT OBS	329	476	1314	979	3098	5.8
TOT PCT	10.6	15.4	42.4	31.6	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH > 4/8)
AND OCCURRENCE OF NH < 5/8 BY WIND DIRECTION

AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION												
000	150	300	600	1000	2000	3500	5000	6500	8000+	NH <5/8	TOTAL	
149	299	599	999	1999	3499	4999	6499	7999		ANY HGT	OBS	
*	.1	.3	1.3	2.0	.8	.5	.1	.1	.2	11.3		
.2	.1	.2	.9	.9	.5	.2	.1	*	.1	4.9		
*	.1	*	.6	.4	.2	.1	.1	.1	.0	2.4		
.1	*	.2	.5	.6	.4	.2	*	.0	.0	2.7		
.1	*	.5	2.0	2.3	1.0	.4	.1	*	*	6.1		
.1	.1	.8	3.0	4.6	1.7	.5	.3	.1	.1	9.5		
.1	*	.3	2.5	2.3	1.2	.6	.1	*	.2	7.7		
.1	*	.3	1.2	1.7	.6	.2	*	*	.1	6.6		
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
*	*	.2	.8	1.5	.3	.2	.0	.0	.1	4.6		
20	13	83	393	503	207	91	26	12	26	1724	3098	
.6	.4	2.7	12.7	16.2	6.7	2.9	.8	.4	.8	55.6	100.0	

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE
OF CEILING HEIGHT (NH > 4/8) AND VSBY (NM)

CEILING (FEET)	= OR >10	= OR >5	= OR >2	VSBY (NM) = OR >1	= OR >1/2	= OR >1/4	= OR >50YD	= OR >0
= OR >6500	1.0	1.2	1.2	1.2	1.2	1.2	1.2	1.2
= OR >5000	1.8	2.0	2.1	2.1	2.1	2.1	2.1	2.1
= OR >3500	4.1	4.9	5.1	5.1	5.1	5.1	5.1	5.1
= OR >2000	9.4	11.4	11.6	11.7	11.7	11.7	11.7	11.7
= OR >1000	22.7	27.1	27.8	28.0	28.0	28.0	28.0	28.0
= OR >600	31.6	39.0	40.5	40.7	40.7	40.8	40.8	40.8
= OR >300	32.9	41.1	43.1	43.4	43.5	43.6	43.6	43.6
= OR >150	33.2	41.5	43.5	43.8	43.9	44.0	44.0	44.0
= OR >0	33.3	41.8	43.9	44.3	44.5	44.6	44.6	44.6
TOTAL	1093	1370	1439	1453	1459	1462	1463	1463

TOTAL NUMBER OF OBS: 3281

PCT FREQ NH < 5/8: 55.4

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	OBSCD	TOTAL OBS
5.7	9.1	14.1	13.9	11.9	8.8	11.0	8.5	16.5	.5	3479

PERIOD: (PRIMARY) 1934-1977
(OVER-ALL) 1861-1977

MAY

AREA 0036 GULF OF PANAMA
6.7N 79.9W

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF PRECIPITATION WITH VARYING VALUES OF VISIBILITY														TOTAL OBS
VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT		
<1/2	PCP	.0	.0	.0	*	.1	*	*	*	.0	.0	.2		
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	*	*		
	TOT %	.0	.0	.0	*	.1	*	*	*	.0	*	.2		
1/2<1	PCP	.0	.1	*	*	*	*	*	.0	.0	.0	.2		
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
	TOT %	.0	.1	*	*	*	*	*	.0	.0	.0	.2		
1<2	PCP	*	*	.0	.1	*	.2	.1	*	.0	.0	.5		
	NO PCP	.1	.1	*	*	*	.1	.1	.1	.0	.0	.5		
	TOT %	.2	.1	*	.1	.1	.2	.2	.1	.0	.0	1.0		
2<5	PCP	.2	.1	.1	*	.3	.4	.2	.1	.0	*	1.5		
	NO PCP	.2	.1	*	*	.1	.2	.1	.2	.0	*	1.0		
	TOT %	.4	.2	.1	*	.4	.5	.3	.3	.0	.1	2.5		
5<10	PCP	.3	.3	.2	.3	.9	1.5	.5	.4	.0	.1	4.6		
	NO PCP	2.3	1.2	.5	.6	1.8	2.8	2.2	1.4	.0	.9	13.7		
	TOT %	2.6	1.5	.7	.9	2.7	4.3	2.7	1.9	.0	1.0	18.3		
10+	PCP	.2	.2	.1	.1	.6	1.1	.7	.5	.0	.1	3.7		
	NO PCP	12.4	6.0	2.9	3.5	9.6	14.8	10.8	8.5	.0	5.8	74.2		
	TOT %	12.7	6.1	3.0	3.6	10.2	15.9	11.5	8.9	.0	5.9	77.9		
TOT OBS														4307
TOT PCT		15.9	8.0	3.9	4.6	13.5	21.0	14.8	11.3	.0	7.0	100.0		

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED WITH VARYING VALUES OF VISIBILITY														TOTAL OBS
VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT		
<1/2	0-3	.0	*	*	.0	.0	.0	.0	.0	.0	*	*		
	4-10	*	.0	.0	*	.1	*	*	*	.0	*	.2		
	11-21	.0	.0	.0	*	.0	*	*	.0	.0	.0	.1		
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
	TOT %	*	*	*	*	.1	*	.1	*	.0	*	.3		
1/2<1	0-3	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	*		
	4-10	.0	*	*	*	*	*	*	.0	.0	.0	.1		
	11-21	.0	*	.0	.0	.0	*	.0	.0	.0	.0	*		
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
	TOT %	*	.1	*	*	*	*	*	.0	.0	.0	.2		
1<2	0-3	*	*	*	*	*	*	*	*	.0	*	.1		
	4-10	.1	.1	*	*	.1	.1	.1	.1	.0	*	.7		
	11-21	*	.0	.0	*	*	.1	.1	*	.0	.0	.3		
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
	TOT %	.1	.1	.1	.1	.1	.2	.2	.1	.0	*	1.1		
2<5	0-3	*	*	.0	*	.1	*	.0	.1	.0	.1	.5		
	4-10	.3	.1	.1	*	.3	.4	.2	.2	.0	.0	1.7		
	11-21	.1	.1	*	*	.1	.2	.1	*	.0	.0	.7		
	22+	*	.0	.0	.0	.0	*	.0	.0	.0	.0	*		
	TOT %	.5	.2	.1	.1	.5	.6	.3	.4	.0	.1	2.9		
5<10	0-3	.4	.1	.1	.1	.4	.5	.4	.3	.0	1.1	3.3		
	4-10	1.6	1.1	.5	.7	1.6	2.7	1.8	1.3	.0	.0	11.2		
	11-21	.6	.3	.1	.1	.8	1.2	.5	.3	.0	.0	3.9		
	22+	.1	.0	.0	*	*	*	*	.0	.0	.0	.2		
	TOT %	2.6	1.5	.7	.8	2.9	4.3	2.7	1.9	.0	1.1	18.5		
10+	0-3	1.3	1.0	.5	.8	1.6	1.9	1.6	1.2	.0	6.1	16.2		
	4-10	7.1	3.6	1.9	2.5	6.8	9.8	7.7	6.4	.0	.0	49.9		
	11-21	3.8	1.3	.4	.3	1.8	3.7	1.9	1.4	.0	.0	14.7		
	22+	.1	*	.0	.0	.1	*	*	.1	.0	.0	.3		
	TOT %	12.3	5.9	2.9	3.6	10.3	15.5	11.3	9.1	.0	6.1	77.0		
TOT OBS														4761
TOT PCT		15.6	7.8	3.8	4.7	13.8	20.8	14.7	11.5	.0	7.3	100.0		

MAY

PERIOD: (PRIMARY) 1934-1977
(OVER-ALL) 1861-1977AREA 0036 GULF OF PANAMA
6.7N 79.9W

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NM >4/8) AND
OCCURRENCE OF NM <5/8 BY HOUR

HOURL (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NM <5/8 ANY HGT	TOTAL OBS
00603	.7	.2	2.3	10.9	12.9	6.9	3.1	.6	.2	1.0	38.8	61.2	817
06609	.4	.4	1.1	12.4	17.1	7.7	2.2	.5	.4	.8	43.1	56.9	731
12615	1.0	.7	3.7	13.6	16.8	5.7	3.1	1.2	.3	.9	47.0	53.0	1033
18621	.3	.1	3.3	12.5	16.6	5.9	3.2	.9	.5	.8	44.1	55.9	790
TOT PCT	21 .6	13 .4	91 2.7	420 12.5	535 15.9	218 6.5	98 2.9	28 .8	12 .4	29 .9	1465 43.5	1906 56.5	3371 100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOURL (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00603	.2	.0	1.0	1.5	15.9	81.5	1122
06609	.2	.0	1.1	2.0	20.7	76.0	1258
12615	.4	.4	1.2	3.7	18.6	75.6	1396
18621	.2	.2	1.3	3.8	20.9	73.5	1272
TOT PCT	14 .3	9 .2	59 1.2	142 2.8	963 19.1	3861 76.5	5048 100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR
CEILING HGT (FEET, NM >4/8) BY HOUR

HOURL (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND 5+	NM <5/8 AND 5+	TOTAL OBS
00603	.8	3.4	15.0	25.3	59.7	786
06609	.4	2.1	15.4	29.2	55.3	712
12615	.9	5.5	21.2	27.3	51.5	1008
18621	.3	4.0	18.6	26.7	54.7	775
TOT PCT	20 .6	128 3.9	586 17.9	889 27.1	1806 55.0	3281 100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
95/99	.0	.0	*	*	*	.0	.0	.0	3	.1
90/94	.0	.0	.0	*	.3	.1	.1	*	19	.5
85/89	.0	.0	.0	*	.9	3.9	1.1	.2	231	6.2
80/84	.0	.0	*	.1	.7	12.5	40.1	9.0	2341	62.4
75/79	.0	.0	.0	.1	.9	13.6	15.2	111.7	29.8	
70/74	.0	.0	.0	.0	.0	.0	*	.9	35	.9
65/69	.0	.0	.0	.0	.0	.0	*	.1	3	.1
TOTAL	0	0	2	6	73	653	2061	954	3749	100.0
PCT	.0	.0	.1	.2	1.9	17.4	55.0	25.4		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.0	*	.0	*	.0	.0	.0	*	.0	.0
.1	.1	*	.1	.1	*	.0	*	.0	*
1.1	.8	.4	.4	.8	1.0	.6	.5	.0	.7
11.5	5.6	2.3	2.5	7.2	11.5	9.5	7.4	.0	5.0
3.1	1.8	1.2	1.2	4.9	8.1	4.7	2.9	.0	1.8
.1	.2	.1	.1	.2	.2	.1	.1	.0	.0
.0	.0	.0	.0	*	*	.0	*	.0	.0
15.9	8.4	4.0	4.2	13.3	20.9	15.0	10.9	.0	7.5

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOURL (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00603	96	86	84	81	77	73	69	80.9	1303
06609	99	84	82	80	77	73	68	80.0	1545
12615	89	85	83	80	77	74	67	79.9	1387
18621	96	90	87	82	76	74	68	81.9	1500
TOT	99	88	85	80	77	74	67	80.6	5935

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOURL (GMT)	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00603	.0	.1	1.5	15.5	62.5	20.4	85	866		
06609	.0	.2	1.0	8.2	57.7	32.9	87	997		
12615	.0	.1	1.4	11.0	58.3	29.2	86	1163		
18621	.0	.4	4.2	34.3	41.9	19.2	82	1008		
TOT	0	8	81	690	2216	1039	85	4034		

PERIOD: (PRIMARY) 1934-1977
(OVER-ALL) 1861-1977

MAY

TABLE 17

AREA 0036 GULF OF PANAMA
6.7N 79.9W

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	65 68	69 72	73 76	77 80	81 84	85 88	89 92	>92	TOT	W FOG	MO FOG
14/16	.0	.0	.0	.0	.0	*	.0	.0	1	.0	*
11/13	.0	.0	.0	.0	.0	*	.0	.1	7	.0	.2
9/10	.0	.0	.0	.1	.1	*	.0	.0	10	.0	.2
7/8	.0	.0	.0	.1	.2	.3	*	.0	35	.0	.8
6	.0	.0	.0	*	.1	.3	.1	.0	22	.0	.5
5	.0	.0	.0	.2	.4	.6	.2	*	60	.0	1.4
4	.0	.0	*	*	.3	.9	.1	.0	67	*	1.6
3	.0	.0	.0	.2	1.2	1.3	*	.0	113	*	2.6
2	.0	.0	*	.5	3.3	1.0	.0	.0	206	.1	4.8
1	.0	*	.0	1.7	5.9	.9	.0	.0	358	*	8.4
0	.0	.0	*	4.8	9.2	.7	.0	.0	621	.4	14.4
-1	.0	*	.1	7.1	8.9	.2	.0	.0	690	.2	16.2
-2	*	*	.1	9.5	6.7	.1	.0	.0	695	.2	16.3
-3	.0	.0	.1	8.4	2.9	*	.0	.0	481	.2	11.2
-4	.0	*	.6	6.0	1.9	*	.0	.0	363	*	8.6
-5	.0	.0	.5	3.6	1.1	*	.0	.0	221	.0	5.2
-6	.0	.0	.7	1.9	.2	.0	.0	.0	118	.0	2.8
-7/-8	.0	*	1.0	1.3	.2	.0	.0	.0	109	.0	2.6
-9/-10	.0	*	.3	.2	*	.0	.0	.0	27	.0	.6
-11/-13	*	*	*	.1	*	.0	.0	.0	9	.0	.2
-14/-16	*	.0	*	.0	.0	.0	.0	.0	2	.0	*
-17/-19	*	.0	.0	.0	.0	.0	.0	.0	1	.0	*
TOTAL	4	9	1927	1808	276	6	34	6	4216	50	4166
PCT	.1	.2	3.6	43.7	42.9	6.5	.8	.1	100.0	1.2	98.8

PERIOD: (OVER-ALL) 1963-1977

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	N						PCT	NE						PCT
	1-3	4-10	11-21	22-33	34-47	48+		1-3	4-10	11-21	22-33	34-47	48+	
<1	.8	1.3	.1	.0	.0	.0	2.1	.8	1.1	.1	.0	.0	.0	1.9
1-2	.4	5.6	1.6	.0	.0	.0	7.6	.4	3.3	.5	.0	.0	.0	4.2
3-4	.1	2.4	3.0	.0	.0	.0	5.6	.0	.9	1.1	.0	.0	.0	2.0
5-6	.0	*	.8	.1	.0	.0	.9	.0	.2	.5	.0	.0	.0	.7
7	.0	.1	.6	.0	.0	.0	.7	.0	.0	.1	.0	.0	.0	.1
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.1
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.1	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.3	9.5	6.1	.1	.0	.0	16.9	1.2	5.5	2.4	.0	.0	.0	9.0

HGT	E						PCT	SE						PCT
	1-3	4-10	11-21	22-33	34-47	48+		1-3	4-10	11-21	22-33	34-47	48+	
<1	.2	.7	.0	.0	.0	.0	.9	.2	.8	.0	.0	.0	.0	1.1
1-2	.2	2.0	.3	.0	.0	.0	2.4	.3	2.0	.1	.0	.0	.0	2.3
3-4	.0	.5	.1	.0	.0	.0	.6	.0	.4	.2	.0	.0	.0	.6
5-6	.0	*	.1	.0	.0	.0	.2	.0	.1	.0	.0	.0	.0	.1
7	.0	.1	.6	.0	.0	.0	.1	.0	.1	.0	.0	.0	.0	.1
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.4	3.2	.5	.0	.0	.0	4.1	.5	3.3	.3	.0	.0	.0	4.1

PERIOD: (OVER-ALL) 1963-1977

MAY

AREA 0036 GULF OF PANAMA
6.7N 79.9W

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.7	1.5	.*	.0	.0	.0	2.2	1.1	1.9	.*	.0	.0	.0	3.0	
1-2	.5	4.6	.7	.0	.0	.0	5.8	.9	7.5	1.1	.0	.0	.0	9.5	
3-4	.1	2.2	1.2	.0	.0	.0	3.4	.2	3.0	3.4	.0	.0	.0	6.6	
5-6	.0	.3	.5	.1	.0	.0	.9	.0	.4	1.2	.0	.0	.0	1.6	
7	.0	.0	.*	.0	.0	.0	.*	.0	.0	.3	.1	.0	.0	.3	
8-9	.0	.0	.*	.*	.0	.0	.1	.0	.0	.1	.*	.0	.0	.2	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.1	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	1.2	8.6	2.6	.1	.0	.0	12.5	2.3	12.8	6.1	.1	.0	.0	21.2	

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	1.0	1.6	.0	.0	.0	.0	2.6	.7	1.0	.0	.0	.0	.0	1.7	
1-2	.9	5.5	1.1	.0	.0	.0	7.4	.7	4.4	.9	.0	.0	.0	6.0	
3-4	.1	1.7	1.3	.1	.0	.0	3.2	.0	1.2	.9	.0	.0	.0	2.1	
5-6	.0	.2	.5	.0	.0	.0	.6	.0	.1	.3	.0	.0	.0	.3	
7	.0	.0	.2	.0	.0	.0	.2	.0	.0	.1	.0	.0	.0	.1	
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	2.1	8.9	3.0	.1	.0	.0	14.0	1.3	6.7	2.2	.0	.0	.0	10.3	92.2

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	15.3	9.8	.2	.0	.0	.0	25.3	
1-2	5.1	33.8	5.8	.0	.0	.0	44.7	
3-4	.6	11.7	10.7	.1	.0	.0	23.1	
5-6	.0	1.1	3.7	.1	.0	.0	5.0	
7	.0	.2	1.2	.1	.0	.0	1.5	
8-9	.0	.0	.2	.1	.0	.0	.3	
10-11	.0	.0	.0	.0	.0	.0	.0	
12	.0	.1	.0	.0	.0	.0	.1	
13-16	.0	.0	.1	.0	.0	.0	.1	
17-19	.0	.1	.0	.0	.0	.0	.1	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	21.0	56.7	22.0	.3	.0	.0	100.0	1696

PERIOD: (OVER-ALL) 1949-1977

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<5	5.6	21.3	20.2	5.9	1.4	.4	.0	.*	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	1539	3
6-7	.1	2.4	6.9	4.9	1.6	.8	.2	.0	.*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	466	4
8-9	.1	1.2	1.9	2.4	.8	.5	.1	.1	.0	.*	.0	.0	.0	.0	.0	.0	.0	.0	.0	201	5
10-11	.0	1.3	.8	.5	.2	.1	.2	.*	.*	.*	.0	.0	.0	.0	.0	.0	.0	.0	.0	89	4
12-13	.0	.0	1.4	.2	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	34	4
>13	.0	.0	.0	.4	.2	.0	.*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	18	6
INDET	7.5	2.7	3.1	1.5	.4	.1	.1	.*	.*	.*	.0	.0	.0	.0	.0	.0	.0	.0	.0	434	2
TOTAL	374	811	960	439	141	47	16	5	3	5	0	0	0	0	0	0	0	0	0	2801	3
PCT	13.4	29.0	34.3	13.7	5.0	1.7	.6	.2	.1	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	

PERIOD: (PRIMARY) 1932-1977
(OVER-ALL) 1861-1977

JUNE

AREA 0036 GULF OF PANAMA
6.8N 79.9W

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT 08 TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
N	6.5	3.2	1.0	.0	.0	.0	.0	10.4	4.6	7.7	1.4	.0	.6	.0	77.0
NE	5.7	7.3	2.4	.0	.0	.0	.0	15.3	7.8	5.2	.3	.0	.7	.0	71.8
E	15.3	.0	6.4	.0	.0	.0	.0	20.0	5.5	5.7	.5	.0	.0	.0	69.2
SE	11.9	3.9	2.8	.0	.0	.0	.0	18.6	3.3	6.7	.6	.0	.6	.0	71.1
S	10.6	2.8	3.5	.0	.0	.0	.0	16.6	6.4	5.3	2.6	.0	.2	.0	70.1
SW	8.8	5.2	3.0	.0	.0	.0	.0	16.4	6.0	5.3	1.6	.0	.3	.0	71.3
W	8.0	5.7	2.3	.0	.0	.0	.0	15.8	7.6	6.9	.9	.0	.1	.0	69.6
NW	8.5	3.8	1.3	.0	.0	.0	.0	13.6	5.1	7.5	.8	.0	.3	.0	73.6
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	6.1	2.5	1.2	.0	.0	.0	.0	9.4	3.3	7.0	.4	.0	.4	.0	80.3
TOT PCT	8.7	4.4	2.5	.0	.0	.0	.0	15.2	6.0	6.3	1.3	.0	.3	.0	72.0
TOT OBS:	3782														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT 08 TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
00003	5.1	3.4	2.1	.0	.0	.0	.0	10.5	4.5	4.8	1.3	.0	.7	.0	78.9
06009	7.1	4.2	1.8	.0	.0	.0	.0	12.7	4.2	17.3	2.4	.0	.2	.0	65.2
12015	11.0	5.2	2.7	.0	.0	.0	.0	18.5	9.0	3.8	1.2	.0	.2	.0	68.4
18021	10.2	5.1	3.6	.0	.0	.0	.0	18.4	4.9	.9	1.8	.0	.2	.0	74.3
TOT PCT	8.5	4.5	2.6	.0	.0	.0	.0	15.3	5.8	6.5	1.7	.0	.3	.0	71.5
TOT OBS:	4030														

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	48+					00	03	06	09	12	15	18	21
N	1.5	5.4	1.5	*	.0	.0		8.5	7.3		6.1	6.8	9.0	10.8	10.5	11.0	7.8	5.5
NE	.9	2.5	.6	*	.0	.0		4.0	6.8		4.1	2.7	4.1	4.9	4.3	7.4	3.1	3.3
E	.6	1.9	.3	.0	.0	.0		2.7	6.0		2.3	1.4	2.8	1.6	3.0	3.4	3.6	1.3
SE	1.0	2.8	.5	*	.0	.0		4.2	6.3		3.3	11.5	4.1	4.1	4.0	5.4	5.3	3.8
S	2.1	9.8	2.1	*	.0	.0		14.1	7.2		16.4	7.4	12.3	10.8	12.3	10.0	15.9	19.5
SW	2.8	17.1	6.6	.1	.0	.0		26.6	8.4		29.8	21.6	25.0	23.2	23.0	28.2	30.8	23.9
W	2.4	14.9	4.7	.2	.0	.0		22.1	8.2		21.3	39.9	23.8	22.2	24.0	20.1	18.8	22.8
NW	1.4	7.4	1.7	*	.0	.0		10.5	7.4		9.4	8.8	9.7	14.0	12.3	11.5	9.1	11.6
VAR	.0	.0	.0	.0	.0	.0		.0	.0		.0	.0	.0	.0	.0	.0	.0	.0
CALM	7.2							7.2	.0		7.4	.0	9.2	8.5	6.7	2.9	5.6	8.3
TOT OBS	1010	3135	910	19	1	0	5075		7.2		1076	37	989	319	1223	102	1064	263
TOT PCT	19.9	61.8	17.9	.4	*	.0		100.0			100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)				
	0-6	7-16	17-27	28-40	41+						00	03	06	12	18
N	4.3	3.8	.3	.0	.0			8.5	7.3		6.1	9.5	10.5	7.3	
NE	2.2	1.7	.1	.0	.0			4.0	6.8		4.0	4.3	4.5	3.1	
E	2.0	.7	*	.0	.0			2.7	6.0		2.2	2.5	3.1	3.1	
SE	2.8	1.4	.1	*	.0			4.2	6.3		3.6	4.1	4.1	5.0	
S	7.4	6.4	.3	.0	.0			14.1	7.2		16.1	11.9	12.1	16.6	
SW	10.3	15.3	1.0	.0	.0			26.6	8.4		29.5	24.6	23.4	29.4	
W	9.4	11.9	.8	.0	.0			22.1	8.2		21.9	23.4	23.7	19.6	
NW	3.2	3.0	.3	.0	.0			10.5	7.4		9.4	10.7	12.2	9.6	
VAR	.0	.0	.0	.0	.0			.0	.0		.0	.0	.0	.0	
CALM	7.2							7.2	.0		7.2	.0	6.4	6.2	
TOT OBS	2580	2344	149	2	0	5075			7.2		1113	1308	1325	1329	
TOT PCT	50.8	46.2	2.9	*	.0			100.0			100.0	100.0	100.0	100.0	

PERIOD: (PRIMARY) 1932-1977
(OVER-ALL) 1861-1977

JUNE

AREA 0036 GULF OF PANAMA
6.8N 79.9W

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)			48+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47				
0000	7.2	11.4	60.9	20.2	.3	.0	.0	7.3	100.0	1113
0600	9.0	12.8	61.7	16.1	.4	.0	.0	6.8	100.0	1308
1200	6.4	12.2	63.5	17.4	.5	.0	.0	7.2	100.0	1325
1800	6.2	14.1	60.9	18.4	.3	.1	.0	7.2	100.0	1329
TOT	365	645	3135	910	19	1	0	7.2		5075
PCT	7.2	12.7	61.8	17.9	.4	*	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	.7	.9	3.2	3.3		6.3
NE	.3	.3	2.0	1.4		6.3
E	.2	.3	1.3	.9		6.1
SE	.1	.5	1.7	1.6		6.5
S	.8	1.7	5.2	5.9		6.3
SW	1.3	4.0	12.1	11.9		6.4
W	1.1	2.4	9.4	9.8		6.4
NW	.6	1.1	4.1	3.5		6.2
VAR	.0	.0	.0	.0		.0
CALM	.6	1.1	3.0	1.9		5.8
TOT OBS	154	325	1121	1070	2670	6.3
TOT PCT	5.8	12.2	42.0	40.1	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8)
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH ANY	<5/8 HGT	TOTAL OBS
.1	.0	.3	1.0	1.7	.4	.1	*	*	.1	.1		4.5	
*	.0	.2	.6	.8	.4	.1	.0	*	*	*		1.9	
.0	.0	.2	.3	.6	.2	.0	*	*	*	.0		1.3	
.0	*	.2	.5	.6	.3	.1	.0	*	*	.0		2.0	
.1	.1	.6	1.7	2.7	1.0	.4	.1	.1	.1	.1		6.7	
.1	.2	1.6	5.1	5.9	2.2	.9	.2	*	*	.1		13.3	
.1	.3	.8	3.8	4.5	1.8	.5	.1	*	*	.2		10.5	
.0	.0	.3	1.4	1.6	.8	.3	.0	*	*	*		4.7	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
.1	.1	.1	.7	1.0	.4	.2	.0	.0	.0	*		3.9	
14	22	109	406	516	202	69	10	7	13	1302			2670
.5	.8	4.1	15.2	19.3	7.6	2.6	.4	.3	.5	48.8			100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE
OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CFILING (FEET)	VSBY (NM)							
	>10	>5	>2	>1	>1/2	>1/4	>50YD	>0
# NR >6500	.6	.8	.8	.8	.8	.8	.8	.8
# NR >5000	1.0	1.1	1.1	1.1	1.1	1.1	1.1	1.1
# NR >3500	3.1	3.6	3.8	3.8	3.8	3.8	3.8	3.8
# NR >2000	9.0	10.8	11.1	11.1	11.2	11.2	11.2	11.2
# NR >1000	23.9	29.3	30.0	30.2	30.3	30.3	30.3	30.3
# NR >600	34.3	43.8	45.3	45.6	45.8	45.8	45.8	45.8
# NR >300	36.5	47.0	48.9	49.5	49.7	49.7	49.7	49.7
# NR >150	36.9	47.6	49.6	50.2	50.4	50.4	50.4	50.4
# NR >0	37.1	47.9	50.0	50.6	50.9	50.9	51.0	51.0
TOTAL	1036	1339	1399	1416	1423	1424	1425	1425

TOTAL NUMBER OF OBS 2796

PCT FREQ NH <5/8 49.0

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8 OBSCD	TOTAL OBS
2.1	7.3	12.3	13.6	13.7	9.4	11.2	9.3	20.6	3018

PERIOD: (PRIMARY) 1932-1977
(OVER-ALL) 1861-1977

JUNE

AREA 0036 GULF OF PANAMA
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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF PRECIPITATION WITH VARYING VALUES OF VISIBILITY												
VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT TOTAL OBS
<1/2	PCP	*	*	.0	*	.1	*	.0	.0	.0	.0	.1
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	*	*	.0	*	.1	*	.0	.0	.0	.0	.1
1/2<1	PCP	*	*	.0	*	.1	.1	.1	.0	.0	.0	.3
	NO PCP	.0	.0	.0	.0	*	*	.0	.0	.0	.0	.1
	TOT %	*	*	.0	.1	.1	.1	.1	.0	.0	.0	.4
1<2	PCP	.1	*	.1	.0	.1	.2	.2	.0	.0	.0	.7
	NO PCP	.0	.0	*	.0	*	.1	*	.0	.0	.0	.2
	TOT %	.1	*	.1	.0	.1	.3	.2	*	.0	.0	.9
2<5	PCP	.1	.1	.1	.1	.2	.4	.5	.1	.0	*	1.6
	NO PCP	.1	.1	.1	*	.3	.3	.2	.1	.0	.0	1.2
	TOT %	.2	.1	.1	.1	.6	.7	.6	.2	.0	*	2.7
5<10	PCP	.3	.2	.2	.3	1.2	2.0	1.6	.7	.0	.3	6.7
	NO PCP	1.3	.7	.3	.8	1.9	3.7	2.8	1.9	.0	1.0	14.3
	TOT %	1.6	.9	.5	1.1	3.0	5.6	4.4	2.6	.0	1.3	21.1
10+	PCP	.3	.3	.1	.3	.7	1.8	1.1	.6	.0	.3	5.7
	NO PCP	6.1	2.7	1.9	2.6	9.4	19.1	15.4	6.9	.0	4.9	69.1
	TOT %	6.5	3.0	2.0	3.0	10.1	20.9	16.6	7.5	.0	5.2	74.8
TOT OBS		3773										
TOT PCT		8.5	4.1	2.8	4.3	14.0	27.7	22.0	10.3	.0	6.5	100.0

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED WITH VARYING VALUES OF VISIBILITY												
VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	*	.0	.0	.0	.0	*
	4-10	.0	*	.0	.0	.1	*	*	*	.0	.0	.2
	11-21	*	*	.0	.0	.0	*	*	*	.0	.0	*
	22+	.0	.0	.0	*	.0	.0	.0	.0	.0	.0	*
TOT %		*	*	.0	*	.1	*	.1	*	.0	.0	.3
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	*	*	*	.0	*	.1	.1	*	.0	.0	.3
	11-21	.0	.0	.0	.0	*	*	.1	*	.0	.0	.1
	22+	*	*	.0	.0	.0	.0	.0	.0	.0	.0	*
TOT %		*	*	*	.0	.0	.1	.1	*	.0	.0	.4
1<2	0-3	*	.0	.0	*	.1	.0	.0	*	.0	.0	.1
	4-10	.0	*	.1	.0	.1	.2	.2	*	.0	.0	.7
	11-21	*	.0	.0	.0	*	.1	.1	*	.0	.0	.2
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT %		.1	*	.1	*	.2	.3	.3	*	.0	.0	1.0
2<5	0-3	*	.0	*	.1	.1	*	*	.1	.0	*	.4
	4-10	.1	.1	*	.1	.3	.4	.5	.2	.0	.0	1.7
	11-21	.1	*	.1	*	.1	.3	.3	.1	.0	.0	1.1
	22+	*	.0	.0	.0	.0	.0	*	.0	.0	.0	*
TOT %		.3	.1	.1	.1	.5	.8	.9	.3	.0	*	3.2
5<10	0-3	.2	.1	.1	.3	.5	.7	.4	.4	.0	1.3	4.0
	4-10	1.0	.5	.3	.6	1.7	3.4	2.8	1.7	.0	.0	12.1
	11-21	.3	.1	.1	.2	.7	1.4	1.2	.6	.0	.0	4.6
	22+	.0	.0	.0	.0	.0	*	*	.0	.0	.0	.1
TOT %		1.6	.8	.5	1.1	2.9	5.5	4.4	2.7	.0	1.3	20.8
10+	0-3	1.0	.8	.5	.7	1.3	2.0	2.0	1.0	.0	5.6	14.9
	4-10	4.3	1.7	1.3	2.2	7.4	13.1	11.1	5.5	.0	.0	46.6
	11-21	1.1	.5	.1	.3	1.4	5.1	3.1	1.1	.0	.0	12.7
	22+	*	.0	.0	.0	*	*	.1	*	.0	.0	.2
TOT %		6.5	2.9	1.9	3.2	10.1	20.2	16.3	7.6	.0	5.6	74.4
TOT OBS		4248										
TOT PCT		8.5	3.9	2.7	4.4	13.9	26.9	22.0	10.8	.0	6.9	100.0

JUNE

PERIOD: (PRIMARY) 1932-1977
(OVER-ALL) 1861-1977

AREA 0036 GULF OF PANAMA
6.8N 79.9W

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NM >4/8) AND
OCCURRENCE OF NM <3/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <3/8 ANY HGT	TOTAL OBS
00003	.1	.0	3.2	13.4	17.2	6.5	3.2	.1	.3	.4	45.1	54.9	709
06009	.3	.8	2.4	12.6	18.1	7.4	2.0	.5	.5	.9	45.4	54.6	637
12015	.5	1.2	4.5	17.8	18.4	7.5	2.2	.2	.5	.5	53.3	46.7	848
18021	1.1	.4	4.6	15.3	19.9	7.2	2.6	.6	.0	.0	51.8	48.2	718
TOT	15	22	109	436	536	209	74	10	9	13	1433	1479	2912
PCT	.5	.8	3.7	15.0	18.4	7.2	2.5	.3	.3	.4	49.2	50.8	100.0

TABLE 11

PERCENT FREQUENCY VS BY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<3	3<10	10+	TOTAL OBS
00003	.2	.3	1.1	3.3	16.3	78.8	994
06009	.3	.2	.3	1.9	22.4	74.6	1153
12015	.2	.3	1.3	3.8	21.5	72.9	1212
18021	.3	.7	1.1	3.4	23.8	70.5	1140
TOT	13	17	42	140	956	3331	4499
PCT	.3	.4	.9	3.1	21.2	74.0	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VS BY (NM) AND/OR
CEILING HGT (FEET, NM >4/8) BY HOUR

HOUR (GMT)	<150 <30YD	<600 <1	<1000 <3	1000+ AND 3+	NH <3/8 AND 5+	TOTAL OBS
00003	.1	4.2	19.7	28.1	52.2	669
06009	.3	3.8	17.5	29.9	52.7	613
12015	.5	6.6	23.7	28.9	45.4	828
18021	1.2	6.4	23.6	30.5	45.9	686
TOT	15	150	614	819	1363	2796
PCT	.5	5.4	22.0	29.3	48.7	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
93/99	.0	.0	*	.0	.0	*	*	.0	2	.1
90/94	.0	.0	.0	*	.3	.1	*	*	17	.5
85/89	.0	.0	.0	.0	.9	2.5	1.2	.2	154	4.7
80/84	.0	.0	.0	.0	.4	10.6	24.1	9.0	1772	54.0
75/79	.0	.0	.0	.0	.1	1.6	17.6	20.3	1300	39.6
70/74	.0	.0	.0	.0	.0	*	.1	.9	32	1.0
65/69	.0	.0	.0	.0	.0	.0	*	*	2	.1
TOTAL	0	0	1	1	51	488	1741	997	3279	100.0
PCT	.0	.0	*	*	1.6	14.9	53.1	30.4		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
*	.0	.0	.0	*	*	.0	.0	.0	.0
.1	*	.0	*	.1	.1	.2	.1	.0	.0
.7	.2	.2	.3	.9	.7	.8	.4	.0	.5
5.9	2.1	1.4	2.0	7.4	13.7	10.3	6.7	.0	4.6
1.8	1.4	1.2	1.5	5.3	12.8	10.3	3.0	.0	2.3
*	*	.1	.1	.2	.2	.2	.1	.0	*
.0	.0	.0	.0	*	*	.0	.0	.0	.0
8.6	3.7	2.8	3.8	13.9	27.6	21.7	10.4	.0	7.5

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	90	86	84	80	76	73	68	80.3	1161
06009	89	84	83	80	77	75	70	79.7	1417
12015	90	85	83	79	76	74	69	79.6	1363
18021	96	90	87	81	76	74	71	81.2	1369
TOT	96	88	84	80	76	74	68	80.2	5310

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-39	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	.0	.8	16.3	56.0	26.8	86	828
06009	.0	.0	.5	9.1	56.0	34.4	87	868
12015	.0	.0	.1	8.2	54.5	37.2	87	934
18021	.0	.2	4.5	26.9	44.8	23.6	83	873
TOT	0	2	51	527	1861	1082	86	3523

PERIOD: (PRIMARY) 1932-1977
(OVER-ALL) 1861-1977

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AREA 0036 GULF OF PANAMA
6.8N 79.9W

TABLE 17

PCT FRQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	65 68	69 72	73 76	77 80	81 84	85 88	89 92	>92	TOT	W FOG	WD FOG
11/13	.0	.0	.0	.0	*	.0	*	*	3	.0	.1
9/10	.0	.0	.0	.1	.1	.0	.0	.1	9	.0	.2
7/8	.0	.0	.0	.0	.1	.2	*	*	22	.0	.6
6	.0	.0	.0	*	.1	.2	.1	.0	15	.0	.4
5	.0	.0	.0	.2	.1	.4	.2	.0	30	.0	.8
4	.0	.0	*	.2	.6	.6	.1	.0	54	*	1.5
3	.0	.0	*	.1	.6	.9	*	.0	62	.0	1.7
2	.0	.0	*	.4	2.8	.8	.0	.0	149	.1	4.0
1	.0	.0	*	.5	3.6	.9	*	.0	185	.1	5.0
0	*	.1	.1	3.4	8.4	.4	.0	.0	452	.4	12.0
-1	.0	.0	.1	6.3	8.3	.2	.0	.0	544	.4	14.5
-2	.0	.0	.2	11.5	7.6	.1	.0	.0	702	.4	18.9
-3	.0	.0	.5	10.2	3.5	.1	.0	.0	519	.2	14.0
-4	.0	.0	.8	7.5	1.9	.0	.0	.0	371	*	10.2
-5	.0	.0	1.3	4.9	.7	.0	.0	.0	250	*	6.8
-6	.0	.0	.7	2.4	.3	.0	.0	.0	125	.0	3.4
-7/-8	.0	.0	1.2	1.7	.1	.0	.0	.0	111	.0	3.0
-9/-10	.0	.1	.5	.2	.0	.0	.0	.0	28	.0	.8
-11/-13	.0	.1	.1	.1	.0	.0	.0	.0	9	.0	.2
-14/-16	.0	*	.0	.0	.0	.0	.0	.0	1	.0	*
TOTAL	1	9	207	1809	175	24	5	3641	61	3580	
PCT	*	.2	5.7	49.7	38.8	4.8	.7	100.0	1.7	98.3	

PERIOD: (OVER-ALL) 1963-1977

TABLE 18

PCT FRQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	N						PCT	NE						PCT
	1-3	4-10	11-21	22-33	34-47	48+		1-3	4-10	11-21	22-33	34-47	48+	
<1	.6	1.2	.0	.0	.0	.0	1.8	.2	.8	.1	.0	.0	.0	1.1
1-2	.2	3.2	.6	.0	.0	.0	4.0	.1	1.1	.2	.0	.0	.0	1.4
3-4	.1	1.0	1.2	.0	.0	.0	2.2	*	.5	.3	.0	.0	.0	.9
5-6	.0	.1	.3	.0	.0	.0	.5	.0	.0	.2	.0	.0	.0	.2
7	.0	.0	.1	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.1	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.8	5.6	2.2	.0	.0	.0	8.6	.4	2.4	.8	.0	.0	.0	3.6

HGT	E						PCT	SE						PCT
	1-3	4-10	11-21	22-33	34-47	48+		1-3	4-10	11-21	22-33	34-47	48+	
<1	.3	.4	.0	.0	.0	.0	.6	.4	.6	.0	.0	.0	.0	1.0
1-2	.1	.8	.2	.0	.0	.0	1.1	.4	1.3	.5	.0	.0	.0	2.2
3-4	.0	.3	.2	.0	.0	.0	.5	.0	.4	.2	.0	.0	.0	.6
5-6	.0	.1	.1	.0	.0	.0	.1	.0	.0	*	.0	.0	.0	*
7	.0	.1	.0	.0	.0	.0	.1	.0	.1	.1	.0	.0	.0	.1
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.3	1.6	.5	.0	.0	.0	2.4	.8	2.4	.8	.0	.0	.0	4.0

PERIOD: (OVER-ALL) 1963-1977

JUNE

AREA 0036 GULF OF PANAMA
6.8N 79.9W

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.3	1.5	.1	.0	.0	.0	1.8	1.4	2.5	.2	.0	.0	.0	4.2
1-2	.3	6.0	.7	.0	.0	.0	7.0	.8	10.1	1.7	.0	.0	.0	12.6
3-4	.1	2.1	1.2	.1	.0	.0	3.5	.3	4.0	3.5	.0	.0	.0	7.8
5-6	.0	.2	.4	.0	.0	.0	.6	.0	.7	2.7	.1	.0	.0	3.5
7	.0	.0	.1	.0	.0	.0	.1	.0	.1	.5	.0	.0	.0	.6
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.1
10-11	.0	.1	.0	.0	.0	.0	.1	.0	.1	.0	.0	.0	.0	.1
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.7	9.9	2.4	.1	.0	.0	13.1	2.5	17.5	8.7	.1	.0	.0	28.8

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	1.1	2.2	.1	.0	.0	.0	3.3	.4	.8	.0	.0	.0	.0	1.2	
1-2	.8	8.2	1.6	.0	.0	.0	10.6	.5	4.3	1.0	.0	.0	.0	5.7	
3-4	.1	3.9	2.7	.1	.0	.0	6.9	.1	1.2	.6	.0	.0	.0	1.8	
5-6	.1	.5	1.4	.1	.0	.0	2.1	.0	.2	.2	.0	.0	.0	.5	
7	.0	.0	.1	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	2.0	14.9	5.8	.4	.0	.0	23.0	.9	6.5	1.8	.0	.0	.0	9.2	92.7

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	14.0	9.9	.4	.0	.0	.0	24.3	
1-2	4.0	33.9	6.1	.0	.0	.0	44.0	
3-4	.9	12.9	9.3	.2	.0	.0	23.2	
5-6	.1	1.8	5.1	.2	.0	.0	7.2	
7	.0	.2	.8	.0	.0	.0	1.0	
8-9	.0	.1	.1	.1	.0	.0	.2	
10-11	.0	.1	.0	.0	.0	.0	.1	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	18.9	58.8	21.8	.5	.0	.0	100.0	1408

PERIOD: (OVER-ALL) 1949-1977

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	7.2	19.7	17.9	6.3	1.4	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1253	3
6-7	.2	2.9	8.3	7.5	1.6	.5	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	505	4
8-9	.0	1.0	2.1	2.3	1.0	.2	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	160	4
10-11	.0	.9	.8	.5	.2	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	65	4
12-13	.0	.0	1.4	.4	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	80	4
>13	.0	.0	.0	.3	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	17	7
INDET	7.0	2.1	2.5	1.2	.5	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	324	2
TOTAL	340	632	780	442	124	36	14	1	4	0	0	0	0	0	0	0	0	0	0	2374	3
PCT	14.3	26.6	32.9	18.6	5.2	1.5	.6	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	

PERIOD: (PRIMARY) 1931-1977
(OVER-ALL) 1862-1977

JULY

AREA 0036 GULF OF PANAMA
6.8N 79.9W

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

PRECIPITATION TYPE										OTHER WEATHER PHENOMENA						
WIND DIR	RAIN	RAIN SHMR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FDG WD PCPN	FDG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST SNOW	ND SIG WEA	
N	8.2	3.6	2.4	.0	.0	.0	.1	13.9	3.0	9.7	.8	.0	.6	.2	72.3	
NE	8.6	4.3	2.4	.0	.0	.0	.0	15.3	4.9	4.1	.8	.0	.7	.0	74.9	
E	13.1	3.5	2.2	.0	.0	.0	.0	18.7	6.5	4.7	.4	.0	.5	.7	69.1	
SE	9.5	4.6	1.5	.0	.0	.0	.0	15.0	6.4	5.7	1.8	.0	.7	.0	70.4	
S	6.5	4.7	3.5	.0	.0	.0	.0	14.0	4.4	5.7	.7	.0	.3	.0	75.3	
SW	9.2	5.1	2.9	.0	.0	.0	.0	17.1	7.7	5.8	.6	.0	.2	.0	69.4	
W	10.0	4.6	4.1	.0	.0	.0	.1	18.5	6.5	9.3	.6	.0	.3	.0	67.0	
NW	7.0	3.6	2.4	.0	.0	.0	.3	13.3	5.6	9.0	1.0	.0	.5	.0	71.8	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	4.9	3.0	3.0	.0	.0	.0	.0	10.8	3.0	9.9	.0	.0	.0	.0	78.3	
TOT PCT	8.6	4.3	3.0	.0	.0	.0	.1	15.7	5.8	7.5	.7	.0	.4	.1	71.0	
TOT OBS:	3559															

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHMR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST BLWG SNOW	ND SIG WEA
0000Z	3.5	1.9	2.2	.0	.0	.0	.0	7.4	3.0	3.3	1.0	.0	.5	.1	84.9
0600Z	5.9	3.8	2.2	.0	.0	.0	.2	12.0	5.1	21.6	1.2	.0	.1	.0	62.6
1200Z	12.3	5.4	3.8	.0	.0	.0	.1	21.5	7.3	4.5	.5	.0	.3	.0	67.0
1800Z	11.4	6.5	3.2	.0	.0	.0	.1	21.0	7.1	1.3	.5	.0	.7	.0	70.0
TOT PCT	8.5	4.5	2.9	.0	.0	.0	.1	15.7	5.7	7.7	.8	.0	.4	.1	70.8
TOT OBS:	3768														

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	48+	00				03	06	09	12	15	18	21	
N	1.4	7.8	3.3	.1	.0	.0		12.6	8.7		9.4	8.7	12.5	16.0	14.8	9.3	13.1	11.0
NE	.8	3.4	.7	.0	.0	.0		5.0	7.1		3.3	6.5	5.4	5.9	5.4	5.7	5.1	6.6
E	.8	2.3	.3	.0	.0	.0		3.4	6.2		3.5	2.2	3.6	1.9	2.9	4.2	4.9	.9
SE	.9	2.6	.3	.1	.0	.0		3.8	6.3		3.3	4.3	3.1	1.9	3.0	6.6	6.0	6.6
S	2.1	7.1	1.4	.0	.0	.0		10.6	6.8		13.8	3.3	8.2	9.7	8.5	11.7	12.6	10.8
SW	2.2	17.3	5.4	.2	.0	.0		25.1	8.3		26.1	22.8	23.0	21.1	25.3	21.4	28.2	23.7
W	2.0	14.8	3.6	.0	.0	.0		20.5	7.8		22.6	26.1	22.7	19.3	20.1	25.9	16.6	18.5
NW	1.4	8.9	2.5	.1	.0	.0		12.9	8.0		11.9	13.0	13.8	15.4	15.4	12.7	8.8	14.4
VAR	.0	.0	.0	.0	.0	.0		.0	.0		.0	.0	.0	.0	.0	.0	.0	.0
CALM	6.1							6.1	.0		6.4	13.0	7.6	8.7	4.5	2.4	4.7	7.5
TOT OBS	886	3211	877	28	0	0	5002		7.3		1096	23	1047	321	1192	83	961	279
TOT PCT	17.7	64.2	17.5	.6	.0	.0		100.0			100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)			
	0-6	7-16	17-27	28-40	41+						00	03	09	18
N	4.9	6.9	.7	.0	.0			12.6	8.7		9.3	13.3	14.5	12.6
NE	2.8	2.0	.2	.0	.0			5.0	7.1		3.3	5.5	5.4	5.4
E	2.1	1.3	.0	.0	.0			3.4	6.2		3.4	3.2	3.0	4.0
SE	2.6	1.1	.1	.0	.0			3.8	6.3		3.3	2.8	3.2	6.1
S	6.1	4.3	.2	.0	.0			10.6	6.8		13.5	8.6	8.7	12.2
SW	9.9	14.2	.9	.0	.0			25.1	8.3		26.0	22.5	25.1	27.2
W	8.8	11.2	.5	.0	.0			20.5	7.8		22.6	21.9	20.5	17.1
NW	5.4	7.1	.3	.0	.0			12.9	8.0		11.9	14.1	15.2	10.1
VAR	.0	.0	.0	.0	.0			.0	.0		.0	.0	.0	.0
CALM	6.1							6.1	.0		6.5	7.9	4.4	5.3
TOT OBS	2429	2415	192	6	0	5002			7.3		1119	1368	1275	1240
TOT PCT	48.6	48.3	3.0	.1	.0			100.0			100.0	100.0	100.0	100.0

PERIOD: (PRIMARY) 1931-1977
(OVER-ALL) 1862-1977

JULY

AREA 0036 GULF OF PANAMA
6.8N 79.9W

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)				48+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47					
00003	6.5	11.4	63.1	18.0	1.0	.0	.0	7.5	100.0	1119	
06009	7.9	11.3	62.9	17.5	.4	.0	.0	7.2	100.0	1368	
12015	4.4	11.1	64.4	19.5	.5	.0	.0	7.7	100.0	1275	
18021	5.3	12.7	66.4	15.2	.4	.0	.0	7.1	100.0	1240	
TOT	303	583	3211	877	28	0	0	7.3		5002	
PCT	6.1	11.7	64.2	17.5	.6	.0	.0	100.0			

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & NBSCD	TOTAL OBS	MEAN CLOUD COVER
N	1.0	1.5	4.6	4.9		6.2
NE	.2	.8	2.1	1.7		6.2
E	.2	.4	1.3	1.8		6.5
SE	.2	.4	1.4	1.2		6.2
S	.4	1.2	4.6	4.4		6.5
SW	1.0	2.3	10.7	12.0		6.7
W	.7	2.4	8.8	9.6		6.6
NW	.9	1.2	4.6	5.1		6.4
VAR	.0	.0	.0	.0		.0
CALM	.4	1.2	2.1	2.1		6.0
TOT OBS	131	295	1034	1101	2561	
TOT PCT	5.1	11.5	40.4	43.0	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8)
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

000	150	300	600	1000	2000	3500	5000	6500	8000+	NH <5/8 ANY HGT	TOTAL OBS
149	299	599	999	1999	3499	4999	6499	7999			
.1	.0	.3	1.5	2.1	.7	.5	.1	.1	.1	6.3	
.1	.0	.1	.6	.7	.5	.2	.1	.1	.1	2.6	
.1	*	.1	.6	.6	.4	*	*	*	.1	1.7	
.1	.0	.1	.4	.5	.4	.1	.0	*	*	1.5	
.1	.0	.2	1.9	2.2	.8	.4	*	.0	.0	5.0	
.2	.1	.9	4.5	7.1	2.4	.8	.2	.1	.1	9.7	
.1	.2	.8	3.5	5.0	1.2	.4	.1	.1	.1	9.9	
.1	.0	.2	1.7	2.6	1.1	.4	.1	.1	.2	5.5	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
.0	.1	.2	.6	.9	.5	.2	*	.0	.1	3.4	
22	12	78	393	554	207	80	15	12	21	1167	2561
.9	.5	3.0	15.3	21.6	8.1	3.1	.6	.5	.8	45.6	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE
OF CEILING HEIGHT (NH >4/8) AND VSBY (NH)

CEILING (FEET)	VSBY (NH)							
	>10	>5	>2	>1	>1/2	>1/4	>50YD	>0
>6500	1.2	1.4	1.4	1.4	1.4	1.4	1.4	1.4
>5000	1.7	2.0	2.0	2.0	2.0	2.0	2.0	2.0
>3500	4.0	5.0	5.1	5.1	5.1	5.1	5.1	5.1
>2000	10.1	12.7	12.9	12.9	13.0	13.0	13.0	13.0
>1000	26.2	33.4	34.2	34.2	34.3	34.3	34.3	34.3
>600	36.4	47.8	49.3	49.5	49.6	49.6	49.6	49.6
>300	37.9	50.3	52.1	52.4	52.6	52.6	52.6	52.7
>150	38.1	50.6	52.6	52.9	53.1	53.2	53.2	53.2
>0	38.3	51.2	53.4	53.7	54.0	54.1	54.1	54.1
TOTAL	1035	1375	1435	1444	1451	1453	1453	1454

TOTAL NUMBER OF OBS: 2561

PCT FREQ NH <5/8: 45.9

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	DBSCD	TOTAL OBS
2.1	6.4	11.8	13.0	12.1	8.5	11.3	12.4	22.1	.3	2878

PERIOD: (PRIMARY) 1931-1977
(OVER-ALL) 1862-1977

JULY

AREA 0036 GULF OF PANAMA
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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.1	.1	.1	.0	.0	.0	.2	
	NO PCP	.0	.0	*	*	.0	.0	.0	.0	.0	.0	.1	
	TOT %	.0	.0	*	*	.1	.1	.1	.0	.0	.0	.3	
1/2<1	PCP	*	*	*	.1	*	*	*	.0	.0	.0	.2	
	NO PCP	*	.0	*	.0	.0	.1	.0	*	.0	.0	.2	
	TOT %	*	*	.1	.1	*	.1	*	*	.0	.0	.4	
1<2	PCP	*	*	*	.1	*	.1	.1	*	.0	.0	.4	
	NO PCP	*	.0	*	*	*	.1	*	.0	.0	.0	.2	
	TOT %	.1	*	*	.1	.1	.1	.1	*	.0	.0	.5	
2<5	PCP	.2	.1	.1	.1	.2	.4	.5	.2	.0	.1	1.8	
	NO PCP	.2	*	.1	.1	.1	.4	.3	.3	.0	.0	1.4	
	TOT %	.4	.1	.2	.2	.3	.8	.7	.5	.0	.1	3.2	
5<10	PCP	.9	.3	.3	.2	.8	2.4	1.9	.7	.0	.3	7.9	
	NO PCP	2.0	.8	.4	.7	1.7	3.8	3.1	2.2	.0	.8	15.4	
	TOT %	2.8	1.1	.7	.9	2.5	6.1	5.0	3.0	.0	1.1	23.3	
10+	PCP	.5	.4	.3	.2	.5	1.4	1.2	.7	.0	.3	5.3	
	NO PCP	8.2	3.4	2.6	2.4	7.4	16.7	13.7	8.3	.0	4.3	67.0	
	TOT %	8.7	3.8	2.9	2.6	7.8	18.1	14.9	9.0	.0	4.5	72.3	
TOT OBS													3546
TOT PCT		12.1	5.0	3.9	3.9	10.8	25.4	20.9	12.5	.0	5.7	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	*	*	
	4-10	.0	*	*	*	*	.1	.1	.0	.0		.3	
	11-21	.0	.0	*	.0	.0	.0	.0	.0	.0		*	
	22+	.0	.0	.0	.0	.0	*	*	.0	.0		*	
	TOT %	.0	*	*	*	*	.1	.1	.0	.0	*	.4	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	*	*	*	.0	*	.1	*	*	.0		.3	
	11-21	.0	.0	.0	*	*	*	.0	.0	.0		*	
	22+	.0	.0	.0	*	.0	.0	.0	.0	.0		*	
	TOT %	*	*	*	*	.0	.1	*	*	.0	.0	.4	
1<2	0-3	*	.0	*	*	.1	*	.0	.0	.0	.0	.1	
	4-10	*	*	.0	.1	.1	.1	*	*	.0	.0	.4	
	11-21	.0	.0	*	.0	.0	.1	*	*	.0	.0	.2	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.1	*	*	.1	.2	.2	.1	*	.0	.0	.7	
2<5	0-3	*	.0	*	*	.1	*	*	.1	.0	*	.4	
	4-10	.3	*	.1	.1	.2	.6	.5	.4	.0		2.3	
	11-21	.2	*	*	*	*	.3	.2	.1	.0		.8	
	22+	.0	.0	.0	.0	.0	*	.0	.0	.0		*	
	TOT %	.5	.1	.2	.2	.3	.9	.8	.6	.0	*	3.5	
5<10	0-3	.2	.2	.2	.2	.4	.5	.5	.2	.0	1.0	3.3	
	4-10	1.8	.8	.5	.6	1.5	3.9	3.6	2.2	.0		15.0	
	11-21	.8	.1	.1	.1	.5	1.6	1.0	.8	.0		5.0	
	22+	*	*	.0	*	*	.1	.0	*	.0		.2	
	TOT %	2.9	1.1	.7	1.0	2.5	6.1	5.0	3.3	.0	1.0	23.5	
10+	0-3	1.0	.5	.7	.6	1.4	1.6	1.4	1.0	.0	4.8	13.0	
	4-10	5.4	2.8	1.8	1.8	5.2	12.7	10.3	6.4	.0		46.4	
	11-21	2.3	.7	.2	.1	.9	3.6	2.5	1.6	.0		11.9	
	22+	.1	*	.0	*	*	*	*	*	.0		.3	
	TOT %	8.8	4.0	2.7	2.6	7.5	17.8	14.2	9.0	.0	4.8	71.5	
TOT OBS													4117
TOT PCT		12.3	5.2	3.7	3.9	10.6	25.3	20.3	12.9	.0	5.9	100.0	

JULY

PERIOD: (PRIMARY) 1931-1977
(OVER-ALL) 1862-1977AREA 0036 GULF OF PANAMA
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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NM >4/8) AND
OCCURRENCE OF NM <5/8 BY HOUR

HR	000	150	300	600	1000	2000	3500	5000	6500	8000+	TOTAL	NM <5/8 ANY MGT	TOTAL OBS
(GMT)	149	299	599	999	1999	3499	4999	6499	7999				
00603	.4	.4	2.9	13.1	19.4	8.3	2.2	1.0	.3	1.0	49.1	50.9	686
06609	1.3	.2	2.4	12.5	22.3	7.2	2.2	.5	.8	.9	50.2	49.8	638
12615	1.0	.6	3.4	17.2	21.6	7.1	4.3	.5	.4	.6	56.8	43.2	813
18621	.8	.8	3.2	16.2	19.7	8.8	3.0	.5	.3	1.1	54.4	45.6	634
TOT	24	14	83	413	576	217	83	17	12	25	1464	1307	2771
PCT	.9	.5	3.0	14.9	20.8	7.8	3.0	.6	.4	.9	52.8	47.2	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HR	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
(GMT)							
00603	.2	.3	.4	2.0	19.7	77.3	979
06609	.5	.1	.5	2.2	23.3	73.4	1155
12615	.4	.6	.7	4.9	25.4	68.1	1134
18621	.4	.6	1.1	4.9	26.4	66.7	1065
TOT	16	17	30	192	1031	3086	4332
PCT	.4	.4	.7	3.5	23.8	71.2	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR
CEILING HGT (FEET, NM >4/8) BY HOUR

HR	<150 <500D	<600 <1	<1000 <5	1000+ AND 5+	NM <5/8 AND 5+	TOTAL OBS
(GMT)						
00603	.6	4.2	17.9	33.0	49.1	660
06609	1.3	3.9	17.8	33.7	48.5	623
12615	1.0	5.3	23.0	34.0	41.0	791
18621	.8	5.0	23.1	32.6	44.3	614
TOT	25	125	569	897	1222	2688
PCT	.9	4.7	21.2	33.4	45.5	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
90/94	.0	.0	.0	.0	.1	.1	.0	.0	5	.2
85/89	.0	.0	.0	.0	.3	2.4	1.1	.5	139	4.3
80/84	.0	.0	.0	.1	.4	9.8	31.8	9.0	1645	51.0
75/79	.0	.0	.0	.2	2.1	20.9	19.5	1377	42.7	
70/74	.0	.0	.0	.0	.0	.2	1.6	58	1.8	
65/69	.0	.0	.0	.0	.0	.0	.0	1	.0	
TOTAL	0	0	0	9	29	462	1744	987	3225	100.0
PCT	.0	.0	.0	.1	.9	14.3	54.1	30.6		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
*	*	.0	.0	.0	*	*	*	.0	.0
1.1	.4	.2	.2	.2	.7	.7	.6	.0	.3
8.4	2.7	1.5	1.9	5.7	10.6	9.5	7.4	.0	3.3
2.8	1.3	1.4	1.3	4.7	13.9	10.9	4.2	.0	2.3
.2	.1	.1	.2	.3	.3	.3	.2	.0	*
.0	.0	.0	*	.0	.0	.0	.0	.0	.0
12.5	4.5	3.3	3.6	10.9	25.5	21.4	12.4	.0	6.0

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HR	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
(GMT)									
00603	90	87	84	80	76	75	69	80.2	1169
06609	87	84	82	80	77	75	70	79.6	1445
12615	90	84	82	79	75	73	70	79.1	1317
18621	90	89	86	81	75	73	69	80.8	1294
TOT	90	87	84	80	76	73	69	79.9	5225

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HR	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
(GMT)								
00603	.0	.0	.6	15.0	61.1	23.3	85	807
06609	.0	.1	.7	9.3	57.5	32.3	87	875
12615	.0	.0	.2	8.3	53.2	38.3	88	951
18621	.0	.2	2.1	27.6	44.2	25.8	84	807
TOT	0	3	30	504	1859	1044	86	3440

PERIOD: (PRIMARY) 1931-1977
(OVER-ALL) 1862-1977

JULY

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6.8N 79.9W

TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	69 72	73 76	77 80	81 84	85 88	89 92	TOT	W FOG	NO FOG
14/16	.0	.0	.0	*	.0	*	2	.0	.1
11/13	.0	.0	.0	*	.0	*	1	.0	*
9/10	.0	.0	.1	.1	*	.1	11	.0	.3
7/8	.0	*	.2	.1	.1	.2	24	.0	.7
6	.0	.0	.1	.1	.1	.1	11	.0	.3
5	.0	.0	.3	.3	.3	*	36	*	1.0
4	.0	.0	.2	.5	.5	*	39	.0	1.1
3	*	.0	.2	.9	.7	.0	61	*	1.7
2	*	.0	.5	2.5	.7	.0	127	*	3.7
1	.0	.1	1.3	3.8	.7	.0	201	.0	5.8
0	*	*	3.5	7.8	.4	.0	403	.2	11.5
-1	.0	.1	7.9	7.1	.3	.0	529	.2	15.2
-2	.0	.4	12.5	6.7	.1	.0	678	.1	19.5
-3	.0	.6	9.9	3.2	*	.0	473	.1	13.6
-4	*	1.1	7.2	1.6	.0	.0	343	.0	9.9
-5	.0	1.2	4.6	.7	*	.0	222	.1	6.4
-6	.0	1.2	2.3	.1	.0	.0	127	.0	3.7
-7/-8	.1	1.2	1.8	.1	.0	.0	111	.0	3.2
-9/-10	.1	.5	.3	.0	.0	.0	30	.0	.9
-11/-13	.1	.3	.1	.0	.0	.0	16	.0	.5
-14/-16	.0	*	.1	.0	.0	.0	3	.0	.1
TOTAL	15		1820	141	15		3448	26	3422
PCT	.4	6.8	52.8	35.3	4.1	.4	100.0	.8	99.2

PERIOD: (OVER-ALL) 1963-1977

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	N						PCT	NE						PCT
	1-3	4-10	11-21	22-33	34-47	48+		1-3	4-10	11-21	22-33	34-47	48+	
<1	.6	1.0	.1	.0	.0	.0	1.8	.1	.3	*	.0	.0	.0	.5
1-2	.6	4.3	1.4	.0	.0	.0	6.3	.2	2.1	.4	.0	.0	.0	2.7
3-4	.0	1.7	1.6	.0	.0	.0	3.3	.1	.6	.2	.0	.0	.0	.9
5-6	.0	.3	.9	.1	.0	.0	1.2	.0	.1	*	.1	.0	.0	.2
7	.0	.0	.2	.1	.0	.0	.3	.0	.0	*	.0	.0	.0	*
8-9	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	*
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.1	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.2	7.2	4.2	.2	.0	.0	12.9	.4	3.1	.8	.1	.0	.0	4.4

HGT	E						PCT	SE						PCT
	1-3	4-10	11-21	22-33	34-47	48+		1-3	4-10	11-21	22-33	34-47	48+	
<1	.3	.5	.0	.0	.0	.0	.8	.3	.7	.0	.0	.0	.0	1.0
1-2	.7	1.3	.2	.0	.0	.0	2.2	.3	1.3	.1	.0	.0	.0	1.7
3-4	.0	.5	.0	.0	.0	.0	.5	.0	.4	.1	.0	.0	.0	.5
5-6	.0	.1	.1	.0	.0	.0	.2	.0	.1	.0	.1	.0	.0	.1
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.1
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.0	2.4	.3	.0	.0	.0	3.7	.3	2.4	.3	.1	.0	.0	3.4

PERIOD: (OVER-ALL) 1963-1977

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TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	S							SW							PCT
	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	
<1	.6	1.4	.0	.0	.0	.0	1.9	.7	2.3	.2	.0	.0	.0	3.1	
1-2	.6	4.4	.0	.0	.0	.0	5.0	.6	11.4	1.3	.0	.0	.0	13.5	
3-4	.0	1.5	.4	.0	.0	.0	2.0	.1	4.9	3.0	.0	.0	.0	8.0	
5-6	.0	.1	.5	.0	.0	.0	.5	.0	.4	1.3	.0	.0	.0	1.7	
7	.0	.1	.1	.0	.0	.0	.2	.0	.1	.1	.1	.0	.0	.3	
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	1.2	7.4	1.6	.0	.0	.0	10.2	1.5	19.1	6.0	.1	.0	.0	26.7	

HGT	W							NW							TOTAL PCT
	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	
<1	.4	2.0	.1	.0	.0	.0	2.5	.3	1.4	.1	.0	.0	.0	1.7	
1-2	.7	8.7	1.3	.0	.0	.0	10.7	.1	5.2	.8	.0	.0	.0	6.1	
3-4	.1	3.4	2.4	.0	.0	.0	5.9	.1	1.8	.9	.0	.0	.0	2.8	
5-6	.0	.5	.9	.0	.0	.0	1.4	.0	.4	.3	.0	.0	.0	.9	
7	.0	.1	.2	.0	.0	.0	.3	.0	.1	.2	.0	.0	.0	.3	
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.1	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	1.2	14.7	5.0	.0	.0	.0	20.9	.4	8.9	2.6	.0	.0	.0	11.9	94.0

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	11.2	9.2	.5	.0	.0	.0	20.9	
1-2	4.8	37.7	6.0	.0	.0	.0	48.5	
3-4	.4	14.1	8.3	.0	.0	.0	22.8	
5-6	.1	1.4	4.0	.2	.0	.0	6.1	
7	.0	.3	.8	.2	.0	.0	1.3	
8-9	.0	.0	.0	.1	.0	.0	.1	
10-11	.1	.0	.0	.0	.0	.0	.1	
12	.0	.0	.1	.0	.0	.0	.1	
13-16	.0	.0	.1	.0	.0	.0	.1	
17-19	.0	.0	.1	.0	.0	.0	.1	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	16.5	63.2	19.8	.5	.0	.0	100.0	1464

PERIOD: (OVER-ALL) 1949-1977

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	5.5	21.3	19.5	5.6	1.8	.4	*	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1292	3
6-7	.2	2.9	8.7	5.8	2.2	.3	.2	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	485	4
8-9	.0	.9	2.8	2.3	1.1	.4	*	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	180	4
10-11	.0	1.0	.8	.6	.2	.0	.0	.0	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	62	4
12-13	.0	.0	1.3	.3	.0	.1	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	41	7
15-19	.0	.0	.0	.4	.3	.2	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	22	7
INDT	6.3	1.6	2.4	1.5	.5	*	*	.0	*	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	255	2
TOTAL	285	657	845	390	138	33	11	6	6	3	1	0	0	0	0	0	0	0	0	2375	3
PCT	12.0	27.7	35.6	16.4	5.8	1.4	.5	.3	.3	.1	*	.0	.0	.0	.0	.0	.0	.0	.0	100.0	

PERIOD: (PRIMARY) 1933-1977
(OVER-ALL) 1880-1977

AUGUST

AREA 0036 GULF OF PANAMA
6.8N 79.9W

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT 08 TIME	PCPN PAST HOUR	THDR LTNG	FGD W0 PCPN	FGD W0 PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
N	7.2	2.6	2.0	.0	.0	.0	.0	11.3	2.7	7.6	.8	.0	.8	.0	78.1
NE	7.5	4.9	2.0	.0	.0	.0	.0	14.4	5.8	6.0	1.1	.0	1.3	.7	72.1
E	6.3	8.8	4.4	.0	.0	.0	.0	19.3	6.0	2.5	1.1	.0	.8	.0	68.7
SE	9.9	3.7	2.6	.0	.0	.0	.0	16.3	4.8	2.0	.0	.0	.9	.0	77.8
S	9.7	6.6	2.2	.0	.0	.0	.0	18.5	6.1	5.5	.1	.0	.2	.0	71.4
SW	10.0	6.4	2.9	.0	.0	.0	.0	19.1	7.7	4.7	.7	.0	.3	.0	68.4
W	9.9	3.6	2.7	.0	.0	.0	.0	15.8	8.3	7.3	.6	.0	.5	.1	68.9
NW	5.7	3.8	3.3	.0	.0	.0	.3	12.9	5.0	11.7	.7	.0	.3	.3	70.6
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	7.1	3.0	2.5	.0	.0	.0	.0	12.2	4.1	4.6	.0	.0	.5	.0	79.7
TOT PCT	8.9	4.9	2.7	.0	.0	.0	*	16.3	6.5	6.3	.6	.0	.4	.1	71.1
TOT OBS:	3580														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT 08 TIME	PCPN PAST HOUR	THDR LTNG	FGD W0 PCPN	FGD W0 PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
00603	4.7	2.6	1.8	.0	.0	.0	.0	9.1	4.5	4.2	.5	.0	.5	.0	82.0
06609	6.8	4.4	2.4	.0	.0	.0	.1	13.3	4.6	16.3	.6	.0	.3	.1	66.5
12615	12.3	6.0	3.9	.0	.0	.0	.0	21.7	8.5	4.2	.4	.0	.4	.2	66.0
18621	11.6	6.3	2.8	.0	.0	.0	.0	20.4	7.2	1.2	1.1	.0	.4	.0	70.4
TOT PCT	9.0	4.9	2.8	.0	.0	.0	*	16.5	6.3	6.5	.6	.0	.4	.1	70.8
TOT OBS:	3765														

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)						
	0-3	4-10	11-21	22-33	34-47	48+	00				03	06	09	12	15	18	21
N	1.2	6.6	2.0	*	.0	.0		9.9	8.0	7.9	10.6	9.6	14.0	11.7	9.7	9.2	8.5
NE	.6	7.5	.6	.0	.0	.0		3.7	7.2	3.1	.0	3.6	2.6	4.1	3.2	4.7	3.7
E	.6	1.6	.2	.0	.0	.0		2.4	6.5	1.5	.0	2.0	1.8	2.6	3.0	3.7	1.7
SE	.8	2.0	.3	*	.0	.0		3.1	6.1	2.3	5.8	2.6	3.1	3.0	4.0	4.4	4.2
S	2.0	8.7	2.2	.1	.0	.0		12.9	7.5	15.2	17.3	9.8	9.8	11.5	11.3	15.6	16.3
SW	2.5	18.6	8.1	.2	.0	.0		29.4	8.7	33.2	45.2	28.2	25.3	28.4	22.8	29.8	27.5
W	2.2	14.6	4.6	.1	.0	.0		21.6	8.1	21.6	16.3	23.9	20.6	21.8	25.8	19.1	20.7
NW	1.2	7.6	2.1	*	.0	.0		11.0	7.8	9.5	4.8	13.8	15.5	10.7	14.8	8.0	11.9
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	6.0							6.0	.0	5.7	.0	6.5	7.4	6.3	5.4	5.5	5.4
TOT OBS	855	3106	1007	22	0	0	4990		7.5	1084	26	1037	326	1183	93	1013	258
TOT PCT	17.1	62.2	20.2	.4	.0	.0		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)					TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)				
	0-6	7-16	17-27	28-40	41+				00	03	06	12	18
N	4.4	5.0	.5	.0	.0	9.9	8.0	8.0	10.7	11.5	9.0		
NE	1.8	1.9	.1	.0	.0	3.7	7.2	3.0	3.3	4.0	4.5		
E	1.3	1.0	*	.0	.0	2.4	6.5	1.5	2.0	2.6	3.3		
SE	2.1	1.0	.1	.0	.0	3.1	6.1	2.4	2.7	3.0	4.4		
S	6.4	6.2	.3	.0	.0	12.9	7.5	15.3	9.8	11.5	15.8		
SW	10.6	17.7	1.1	.0	.0	29.4	8.7	33.5	27.5	28.0	29.3		
W	8.9	12.1	.5	*	.0	21.6	8.1	21.4	23.1	22.1	19.4		
NW	4.7	5.9	.4	.0	.0	11.0	7.8	9.4	14.2	11.0	8.8		
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
CALM	6.0					6.0	.0	5.6	6.7	6.3	5.5		
TOT OBS	2307	2532	150	1	0	4990		7.5	1080	1363	1276	1271	
TOT PCT	46.2	50.7	3.0	*	.0	100.0		100.0	100.0	100.0	100.0		

AUGUST

PERIOD: (PRIMARY) 1933-1977
(OVER-ALL) 1880-1977

AREA 0036 GULF OF PANAMA
6.8N 79.9W

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)				48+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47					
0000Z	5.6	10.4	60.0	23.2	.8	.0	.0	.0	7.9	100.0	1080
0600Z	6.7	10.3	63.1	19.5	.4	.0	.0	.0	7.4	100.0	1363
1201Z	6.3	11.1	62.7	19.5	.4	.0	.0	.0	7.5	100.0	1276
1802Z	5.5	12.5	62.8	19.0	.2	.0	.0	.0	7.4	100.0	1271
TOT	301	554	3106	1007	22	0	0	0	7.5		4990
PCT	6.0	11.1	62.2	20.2	.4	.0	.0	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	.5	1.3	3.4	3.1		6.2
NE	.2	.5	1.3	1.5		6.4
E	.2	.2	.9	1.0		6.2
SE	.2	.5	1.3	1.0		6.0
S	.5	1.2	6.0	6.1		6.6
SW	.8	2.8	13.2	14.3		6.7
W	.8	1.8	9.8	9.7		6.6
NW	1.1	1.3	4.2	3.7		6.0
VAR	.0	.0	.0	.0		.0
CALM	.3	1.0	2.4	1.8		6.1
TOT OBS	120	278	1107	1099	2604	6.5
TOT PCT	4.6	10.7	42.5	42.2	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8)
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

000	150	300	600	1000	2000	3500	5000	6500	8000+	NH	<5/8	TOTAL
149	299	599	999	1999	3499	4999	6499	7999		ANY	HGT	OBS
.1	.1	.4	1.2	1.0	.7	.3	.1	*	.0	4.5		
*	.0	.1	.6	.7	.2	.1	*	.0	.0	1.9		
.0	.0	.0	.6	.5	.2	.1	*	.0	.0	1.0		
.0	.0	.1	.4	.8	.2	.1	.0	*	*	1.6		
.3	*	.6	2.1	2.8	1.6	.4	.1	.1	.0	5.9		
.2	.3	1.3	5.9	6.8	2.5	1.0	.3	.0	.1	12.8		
.1	.2	1.3	3.6	4.2	1.8	.8	.2	.1	*	9.7		
*	.1	.3	1.2	1.8	.7	.2	.1	.1	*	5.9		
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
.2	*	.1	.7	1.3	.2	.2	.1	.0	*	2.7		
.23	.18	.110	.419	.516	.207	.83	.20	.7	.7	1194		2604
.9	.7	4.2	16.1	19.8	7.9	3.2	.8	.3	.3	45.9		100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE
OF CEILING HEIGHT (NH >4/8) AND VSBY (NH)

CEILING (FEET)	VSBY (NH)				VSBY (NH)			
	# OR >10	# OR >5	# OR >2	# OR >1	# OR >1/2	# OR >1/4	# OR >30YD	# OR >0
# NH >6500	.4	.6	.6	.6	.6	.6	.6	.6
# NH >5000	1.0	1.4	1.4	1.4	1.4	1.4	1.4	1.4
# NH >3500	3.4	4.3	4.4	4.5	4.5	4.5	4.5	4.5
# NH >2000	10.0	12.1	12.4	12.6	12.6	12.6	12.6	12.6
# NH >1000	24.9	30.9	31.8	32.1	32.1	32.1	32.1	32.1
# NH >600	35.6	45.4	47.4	47.9	47.9	48.0	48.1	48.1
# NH >300	37.7	48.9	51.4	52.0	52.1	52.1	52.2	52.3
# NH >150	38.1	49.5	52.1	52.6	52.7	52.8	52.9	52.9
# NH >0	38.3	50.3	52.9	53.5	53.6	53.7	53.8	53.8
TOTAL	1033	1258	1428	1443	1447	1449	1451	1452

TOTAL NUMBER OF OBS: 2698

PCT FREQ NH <5/8: 46.2

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	OBSCD	TOTAL OBS
2.5	6.4	11.0	13.0	13.1	9.4	12.9	9.7	21.7	.3	2885

PERIOD: (PRIMARY) 1933-1977
(OVER-ALL) 1880-1977

AUGUST

AREA 0036 GULF OF PANAMA
6.8N 79.9W

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.1	.0	.0	*	*	*	.0	.0	.0	.1	
	NO PCP	.0	.0	.0	.0	.0	*	*	.0	.0	.0	.1	
	TOT %	.0	.1	.0	.0	*	.1	*	.0	.0	.0	.2	
1/2<1	PCP	.0	.0	.0	*	*	.1	.0	.0	.0	.0	.2	
	NO PCP	.0	.0	.0	.0	*	*	.0	.0	.0	.0	.1	
	TOT %	.0	.0	.0	*	*	.1	*	.0	.0	.0	.3	
1<2	PCP	.0	.0	*	.0	.1	.3	*	.1	.0	*	.5	
	NO PCP	.1	*	*	.0	*	.1	.1	*	.0	.0	.3	
	TOT %	.1	*	.1	.0	.1	.4	.1	.1	.0	*	.8	
2<5	PCP	.2	.1	.0	.1	.3	.6	.3	.2	.0	.1	1.9	
	NO PCP	.1	*	.1	*	.2	.3	.3	.2	.0	*	1.2	
	TOT %	.3	.1	.1	.1	.5	1.0	.6	.4	.0	.1	3.1	
5<10	PCP	.5	.2	.3	.1	.9	3.0	1.8	.5	.0	.4	7.8	
	NO PCP	1.2	.5	.3	.3	1.9	5.1	2.8	1.4	.0	.8	14.2	
	TOT %	1.7	.8	.5	.4	2.8	8.1	4.6	1.9	.0	1.2	22.0	
10+	PCP	.3	.2	.2	.3	1.0	1.6	1.2	.5	.0	.2	5.5	
	NO PCP	6.7	2.7	1.7	2.3	8.9	19.3	14.9	7.5	.0	4.1	68.1	
	TOT %	7.0	2.9	1.9	2.6	9.9	20.9	16.1	8.0	.0	4.3	73.6	
TOT OBS		3558											
TOT PCT		9.0	3.9	2.6	3.2	13.4	30.5	21.5	10.4	.0	5.5	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	*	.0	.0	.0	.0	.0	.0	.0	.0	*	
	4-10	.0	.0	.0	.0	*	*	.1	*	.0	.0	.2	
	11-21	.0	*	.0	.0	.0	.0	.0	.0	.0	.0	*	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	*	.0	.0	*	*	.1	*	.0	.0	.2	
1/2<1	0-3	.0	.0	.0	.0	*	*	.0	.0	.0	*	*	
	4-10	.0	.0	.0	.0	*	.1	.0	.0	.0	.0	.1	
	11-21	.0	.0	.0	*	.0	*	.0	.0	.0	.0	*	
	22+	.0	.0	.0	.0	.0	.0	*	.0	.0	.0	*	
	TOT %	.0	.0	.0	*	*	.1	*	.0	.0	*	.2	
1<2	0-3	.0	.0	*	.0	.0	.0	.0	.0	.0	*	*	
	4-10	.1	*	*	*	.1	.3	*	.1	.0	*	.6	
	11-21	*	.0	*	*	.0	.1	.1	*	.0	.0	.2	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.1	*	.1	*	.1	.4	.1	.1	.0	*	.9	
2<5	0-3	*	*	*	*	*	.1	*	*	.0	.1	.4	
	4-10	.2	*	.0	*	.3	.7	.6	.3	.0		2.2	
	11-21	*	*	*	*	.1	.3	.2	.1	.0		.9	
	22+	.0	.0	.0	.0	.0	.0	.0	*	.0		*	
	TOT %	.3	.1	.1	.1	.5	1.1	.8	.4	.0	.1	3.5	
5<10	0-3	.1	.1	.1	.2	.5	.6	.4	.2	.0	1.1	3.2	
	4-10	1.2	.6	.4	.2	1.4	4.6	2.9	1.4	.0		12.6	
	11-21	.4	.1	.1	.1	.7	2.3	1.3	.3	.0		5.3	
	22+	*	.0	.0	*	*	.2	*	*	.0		.3	
	TOT %	1.7	.8	.6	.4	2.6	7.6	4.5	1.9	.0	1.1	21.4	
10+	0-3	1.0	.5	.5	.6	1.4	1.7	1.9	.9	.0	4.6	13.1	
	4-10	4.6	1.9	1.2	1.8	6.9	13.5	11.0	5.7	.0		46.6	
	11-21	1.4	.4	.1	.2	1.5	5.5	3.0	1.7	.0		13.9	
	22+	.0	.0	.0	.0	*	*	*	.0	.0		.1	
	TOT %	7.1	2.9	1.8	2.7	9.8	20.7	16.0	8.2	.0	4.6	73.7	
TOT OBS		4035											
TOT PCT		9.2	3.8	2.5	3.3	13.1	29.9	21.5	10.7	.0	5.9	100.0	

PERIOD: (PRIMARY) 1933-1977
(OVER-ALL) 1880-1977

AUGUST

AREA 0036 GULF OF PANAMA
6.8N 79.9W

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NM >4/8) AND
OCCURRENCE OF NM <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NM <5/8 ANY HGT	TOTAL OBS
00003	.7	.6	3.3	13.2	16.3	8.2	3.3	1.0	.3	.6	47.5	52.5	674
06009	1.1	.5	1.9	15.1	17.8	8.2	4.5	.5	.2	.3	50.1	49.9	623
12015	1.0	.9	5.9	17.4	20.0	8.1	2.0	.9	.1	.4	56.5	43.5	816
18021	.6	.6	4.6	15.8	21.7	6.8	2.8	.7	.4	.1	54.3	45.7	672
TOT	24	18	113	431	530	218	85	22	7	10	1458	1327	2785
PCT	.9	.6	4.1	15.5	19.0	7.8	3.1	.8	.3	.4	52.4	47.6	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.0	.0	.4	3.2	16.9	79.5	918
06009	.3	.4	.9	2.4	23.0	73.1	1118
12015	.4	.4	1.2	5.1	23.1	69.8	1124
18021	.2	.2	.9	3.1	23.1	72.6	1094
TOT	9	11	36	146	915	3097	4214
PCT	.2	.3	.9	3.5	21.7	73.5	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR
CEILING HGT (FEET, NM >4/8) BY HOUR

HOUR (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND 5+	NM <5/8 AND 5+	TOTAL OBS
00003	.8	4.8	20.1	29.6	50.3	646
06009	1.3	3.8	20.3	31.6	48.1	601
12015	1.0	8.4	27.1	30.7	42.2	801
18021	.6	6.2	24.2	31.7	44.2	650
TOT	25	161	626	833	1239	2698
PCT	.9	6.0	23.2	30.9	45.9	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
95/99	.0	.0	.0	.0	.0	.0	.0	.0	1	.0
90/94	.0	.0	.0	.0	.2	.1	.0	.0	10	.0
85/89	.0	.0	.1	.0	.5	2.2	1.1	.3	137	4.2
80/84	.0	.0	.0	.0	.9	10.5	29.6	7.4	1578	48.4
75/79	.0	.0	.0	.1	.2	1.8	22.6	20.8	1481	45.4
70/74	.0	.0	.0	.0	.0	.0	.1	1.6	56	1.7
TOTAL	0	0	3	4	57	474	1742	983	3269	100.0
PCT	.0	.0	.1	.1	1.7	14.5	53.4	30.1		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
95/99	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
90/94	.1	.0	.1	.0	.1	.0	.0	.0	.0	.0
85/89	.8	.2	.2	.2	.3	.7	.8	.6	.0	.4
80/84	5.7	2.0	1.3	1.5	5.9	13.3	10.2	5.5	.0	2.9
75/79	2.2	1.2	.9	1.0	6.2	16.9	11.1	3.4	.0	2.5
70/74	.2	.1	.0	.1	.5	.4	.3	.1	.0	.0
TOTAL	8.9	3.6	2.5	2.8	13.1	31.3	22.4	9.6	.0	5.8

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	90	86	84	80	76	75	64	80.0	1130
06009	93	84	82	79	76	74	68	79.3	1434
12015	96	83	82	79	75	73	70	79.0	1311
18021	93	90	86	81	75	73	68	80.7	1309
TOT	96	87	84	80	76	73	64	79.7	5184

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-39	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	.0	1.3	15.2	60.3	23.2	85	794
06009	.0	.1	.7	9.3	58.0	31.9	87	859
12015	.0	.2	.5	8.1	52.3	38.9	88	947
18021	.0	.5	4.4	27.1	43.0	25.0	83	835
TOT	0	7	58	504	1831	1035	86	3435

AUGUST

PERIOD: (PRIMARY) 1933-1977
(OVER-ALL) 1880-1977

TABLE 17

AREA 0036 GULF OF PANAMA
6.8N 79.9WPCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	61 64	65 68	69 72	73 76	77 80	81 84	85 88	89 92	>92	TOT	W FOG	WD FOG
20/22	.0	.0	.0	.0	.0	*	.0	.0	.0	1	.0	*
17/19	.0	.0	.0	.0	.0	.0	.0	.0	*	1	.0	*
14/16	.0	.0	.0	.0	.0	.0	*	.0	.0	1	.0	*
11/13	.0	.0	.0	*	*	*	*	.0	.0	4	.0	.1
9/10	.0	.0	.0	.0	.1	.1	.1	.1	.0	9	.0	.3
7/8	.0	.0	.0	.0	.1	.2	.2	.2	.1	25	.0	.7
6	.0	.0	.0	*	.1	*	.2	.0	.0	10	.0	.3
5	.0	.0	*	*	.1	.2	.4	.0	.0	25	.0	.7
4	.0	*	.0	.0	.1	.3	.6	.1	.0	38	.0	1.1
3	.0	.0	.0	*	.1	.7	.8	.0	.0	56	*	1.6
2	.0	.0	.0	.0	.6	2.4	.6	.0	.0	125	.1	3.6
1	.0	.0	.0	.1	.8	3.0	.7	*	.0	159	.1	4.6
0	.0	.0	*	.1	3.4	8.1	.3	.0	.0	411	.2	11.7
-1	.0	.0	.0	*	3.1	6.3	.1	.0	.0	499	*	14.5
-2	*	.0	.0	.4	12.3	5.3	.1	.0	.0	623	.2	17.9
-3	.0	.0	.0	.9	11.4	2.5	*	.0	.0	514	*	14.9
-4	.0	.0	.0	2.1	8.3	1.3	*	.0	.0	405	*	11.7
-5	.0	.0	.0	1.2	5.4	.7	.0	.0	.0	252	.0	7.3
-6	.0	.0	.0	1.2	2.6	.1	*	.0	.0	136	.0	3.9
-7/-8	.0	*	.0	1.3	1.7	.1	.0	.0	.0	108	*	3.1
-9/-10	.0	.0	.2	.8	.2	*	.0	.0	.0	39	.0	1.1
-11/-13	.0	.0	.1	*	*	.0	.0	.0	.0	5	.0	.1
TOTAL	1	1	12	282	1909	140	11	3		3446	22	3424
PCT	*	*	.3	8.2	55.4	31.5	4.1	.3	.1	100.0	.6	99.4

PERIOD: (OVER-ALL) 1963-1977

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.4	1.2	.1	.0	.0	.0	1.6	.2	.6	.0	.0	.0	.0	.7
1-2	.2	2.7	.7	.0	.0	.0	3.6	.2	1.2	.2	.0	.0	.0	1.6
3-4	.1	1.4	.6	.0	.0	.0	2.0	.0	.4	.5	.0	.0	.0	.9
5-6	.0	.1	.2	.0	.0	.0	.3	.0	*	.1	.0	.0	.0	.1
7	.0	.0	.1	.0	.0	.0	.1	.0	.0	.1	.0	.0	.0	.1
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.7	5.3	1.6	.0	.0	.0	7.6	.4	2.2	.9	.0	.0	.0	3.5

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.2	.4	.0	.0	.0	.0	.6	.3	.9	.0	.0	.0	.0	1.2
1-2	.2	1.0	.2	.0	.0	.0	1.4	*	1.3	.2	.0	.0	.0	1.5
3-4	.0	.4	.1	.0	.0	.0	.5	.0	.2	.3	.0	.0	.0	.5
5-6	.0	.0	.1	.0	.0	.0	.1	.0	.0	.1	.0	.0	.0	.1
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.4	1.7	.4	.0	.0	.0	2.6	.3	2.4	.7	.0	.0	.0	3.4

PERIOD: (OVER-ALL) 1963-1977

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AREA 0036 GULF OF PANAMA
6.8N 79.9W

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.5	1.1	.1	.0	.0	.0	1.7	1.4	2.7	.1	.0	.0	.0	4.1	2.0
1-2	.7	5.6	.8	.0	.0	.0	7.1	.6	10.0	2.9	.0	.0	.0	13.5	
3-4	.1	2.3	1.2	.0	.0	.0	3.6	.0	4.5	5.1	.0	.0	.0	9.6	2.3
5-6	.1	.6	.5	.1	.0	.0	1.2	.1	1.0	2.0	.1	.0	.0	3.2	
7	.0	.1	.1	.1	.0	.0	.3	.0	.3	.7	.1	.0	.0	1.0	.6
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.1	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.1	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.4	9.8	2.7	.1	.0	.0	14.1	2.0	18.5	10.8	.2	.0	.0	31.5	

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	1.1	2.8	.2	.0	.0	.0	4.1	.5	1.4	.2	.0	.0	.0	2.0	4.8
1-2	.7	8.3	1.4	.0	.0	.0	10.4	.4	3.5	1.0	.0	.0	.0	4.8	
3-4	.0	3.0	1.8	.1	.0	.0	4.9	.0	1.1	1.2	.0	.0	.0	2.3	.6
5-6	.1	.4	.9	.0	.0	.0	1.4	.1	.2	.3	.0	.0	.0	.6	
7	.0	.1	.4	.0	.0	.0	.6	.0	.0	.1	.0	.0	.0	.1	.0
8-9	.0	.1	.0	.1	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.8	14.8	4.7	.1	.0	.0	21.4	.9	8.2	2.7	.0	.0	.0	9.9	93.9

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	11.7	11.2	.5	.0	.0	.0	23.5	43.6
1-2	3.3	33.0	7.2	.0	.0	.0	43.6	
3-4	.2	12.9	10.5	.1	.0	.0	23.7	6.8
5-6	.3	2.4	4.0	.1	.0	.0	6.8	
7	.0	.5	1.4	.1	.0	.0	2.0	.3
8-9	.0	.1	.1	.1	.0	.0	.3	
10-11	.0	.0	.0	.0	.0	.0	.0	.1
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.1	.0	.0	.0	.0	.1	.0
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	1380
TOT PCT	15.6	60.2	23.8	.4	.0	.0	100.0	

PERIOD: (OVER-ALL) 1949-1977

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	6.0	19.5	19.7	5.6	1.7	.3	.0	.0	*	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	1242	3
6-7	.1	2.8	8.2	7.4	2.4	.3	.2	.0	*	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	505	4
8-9	*	.7	2.4	2.2	1.1	.7	*	*	*	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	173	5
10-11	.0	1.0	.8	.9	.3	*	.0	.0	*	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	70	4
12-13	.0	.0	1.2	.2	.3	.1	*	*	*	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	46	5
>13	.0	.0	.0	.3	*	.1	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	12	7
INDET	5.6	2.6	3.1	1.3	.1	*	*	.0	.0	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	303	2
TOTAL	276	626	832	419	141	39	7	2	3	4	0	2	0	0	0	0	0	0	0	2351	3
PCT	11.7	26.6	35.4	17.8	6.0	1.7	.3	.1	.1	.2	.0	.1	.0	.0	.0	.0	.0	.0	.0	100.0	

SEPTEMBER

PERIOD: (PRIMARY) 1931-1977
(OVER-ALL) 1880-1977

AREA 0036 GULF OF PANAMA
6.8N 79.9W

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

PRECIPITATION TYPE										OTHER WEATHER PHENOMENA					
WIND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHR FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FDG WD PCPN	FDG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG SNOW	NO SIG WEA
N	5.9	1.2	1.3	.0	.0	.0	.0	8.5	4.7	10.2	1.1	.0	.5	.0	75.8
NE	10.6	2.0	.2	.0	.0	.0	.0	12.9	3.5	3.5	1.0	.0	.0	.0	79.2
E	10.6	4.1	4.1	.0	.0	.0	.0	18.9	3.9	7.0	.0	.0	2.1	.0	69.3
SE	10.7	3.9	1.8	.0	.0	.0	.0	15.7	3.0	5.3	.7	.0	.0	.0	75.8
S	7.6	5.0	1.9	.0	.0	.0	.0	14.3	7.1	6.2	.1	.0	.1	.0	72.2
SW	8.1	5.2	2.6	.0	.0	.0	.0	13.6	6.1	5.1	1.0	.0	.0	.0	72.9
W	8.4	3.9	1.9	.0	.0	.0	.1	14.1	6.9	7.8	1.1	.0	.0	.0	71.0
NW	8.6	1.9	3.1	.0	.0	.0	.0	13.3	5.8	9.8	.5	.0	.3	.0	71.4
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	6.0	3.0	.0	.0	.0	.0	.0	9.0	2.5	6.5	.5	.0	.0	.0	82.0
TOT PCT	8.2	4.0	2.1	.0	.0	.0	*	14.2	5.9	6.7	.8	.0	.1	.0	73.1
TOT OBS:	3588														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA								
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
00003	3.5	3.1	1.7	.0	.0	.0	.0	8.2	4.7	8.1	.6	.0	.1	.0		79.0
06009	6.5	4.4	1.4	.0	.0	.0	.1	12.3	4.4	16.3	1.1	.0	.1	.0		67.5
12015	11.8	4.4	2.7	.0	.0	.0	.0	18.7	7.2	3.4	.5	.0	.3	.0		70.4
18021	10.7	4.6	2.3	.0	.0	.0	.1	17.4	6.4	.9	1.0	.0	.0	.0		74.8
TOT PCT	8.4	4.2	2.1	.0	.0	.0	.1	14.5	5.8	7.0	.8	.0	.1	.0		72.7
TOT OBS:	3721															

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)						
	0-3	4-10	11-21	22-33	34-47	48+	00				03	06	09	12	15	18	21
N	1.2	3.3	.8	*	.0	.0	5.3	7.0	3.3	8.6	4.7	5.3	5.6	8.6	5.2	4.1	
NE	.5	2.0	.2	*	.0	.0	2.7	6.5	2.0	3.0	2.4	2.2	3.5	2.6	3.3	1.9	
E	.7	1.5	.2	*	.0	.0	2.4	5.8	1.1	3.1	2.1	1.7	3.2	6.3	2.8	3.1	
SE	.9	2.6	.7	.1	.0	.0	4.3	7.0	4.1	3.1	3.3	3.5	3.7	1.1	6.2	5.7	
S	2.1	9.8	2.4	.1	.0	.0	14.4	7.5	14.5	10.2	15.5	11.8	12.4	7.8	16.3	17.2	
SW	2.2	20.9	8.7	.2	*	.0	32.0	9.0	32.6	39.1	28.2	30.4	31.0	33.0	35.8	36.4	
W	2.1	16.6	5.8	*	.0	.0	24.6	8.5	26.8	31.3	27.0	27.6	24.6	24.7	19.2	22.3	
NW	1.3	6.2	1.3	*	.0	.0	8.8	7.3	7.6	1.6	10.0	11.5	10.8	8.9	6.2	7.3	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	5.5						5.5	.0	5.9	3.1	6.7	6.1	5.1	6.9	4.9	1.9	
TOT OBS	824	3150	1000	25	2	0	5001		7.7	1014	32	1093	297	1181	87	1040	257
TOT PCT	16.5	63.0	20.0	.5	*	.0		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)						
	0-6	7-16	17-27	28-40	41+						00	03	06	12	15	18	21
N	2.8	2.3	.2	.0	.0			5.3	7.0	3.4	4.8	5.8	5.0				
NE	1.6	1.1	*	.0	.0			2.7	6.5	2.0	2.3	3.5	3.1				
E	1.6	.7	.1	.0	.0			2.4	5.8	1.2	2.0	3.5	2.8				
SE	2.5	1.7	.1	*	.0			4.3	7.0	4.1	3.3	3.6	6.1				
S	7.0	7.1	.3	.0	.0			14.4	7.5	14.3	14.7	12.1	16.5				
SW	10.5	19.8	1.7	*	.0			32.0	9.0	32.8	28.7	31.1	35.9				
W	9.1	14.5	.9	*	.0			24.6	8.5	26.9	27.2	24.6	19.8				
NW	4.5	4.2	.1	*	.0			8.8	7.3	7.4	10.4	10.6	6.4				
VAR	.0	.0	.0	.0	.0			.0	.0	.0	.0	.0	.0				
CALM	5.5							5.5	.0	5.8	6.5	5.2	4.3				
TOT OBS	2255	2365	176	5	0	5001			7.7	1046	1390	1268	1297				
TOT PCT	45.1	51.3	3.5	.1	.0			100.0		100.0	100.0	100.0	100.0				

PERIOD: (PRIMARY) 1931-1977
(OVER-ALL) 1880-1977

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AREA 0036 GULF OF PANAMA
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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)			48+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47				
00003	5.8	10.6	38.7	24.1	.7	.1	.0	7.9	100.0	1046
06009	6.5	8.6	65.5	18.8	.6	.0	.0	7.7	100.0	1390
12015	5.2	13.2	62.9	18.5	.1	.1	.0	7.4	100.0	1268
18021	4.3	11.7	63.8	19.4	.7	.0	.0	7.7	100.0	1297
TOT	27.4	33.0	313.0	100.0	2.5	2	0	7.7		5001
PCT	5.5	11.0	63.0	20.0	.5	*	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBS	TOTAL OBS	MEAN CLOUD COVER
N	.5	.6	2.5	1.5		5.9
NE	.2	.4	1.5	.9		6.1
E	.2	.4	1.1	1.0		6.1
SE	.1	.7	2.5	1.1		6.2
S	.0	1.6	7.2	5.3		6.3
SW	1.6	3.7	13.7	11.5		6.3
W	1.6	3.6	10.7	9.1		6.2
NW	.4	1.2	4.1	2.6		6.2
VAR	.0	.0	.0	.0		.0
CALM	.8	1.2	2.9	1.6		5.5
TOT OBS	152	343	1183	888	2566	6.2
TOT PCT	5.9	13.4	46.1	34.6	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8)
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH <5/8 ANY HGT	TOTAL OBS
*		.1	.1	.8	1.4	.5	.1	*	*	.0	2.2	
.0		*	.1	.3	.8	.2	.0	*	*	.0	1.6	
.0		*	.1	.4	.4	.3	*	*	*	.0	1.3	
.1		*	*	.7	.6	.5	*	.1	*	.0	2.3	
.1		.1	.6	2.7	2.8	1.1	.2	.1	*	.1	6.9	
.1		.1	1.1	5.2	6.0	2.5	.8	.1	.1	.2	14.3	
.1		.2	.7	4.1	5.2	1.4	.4	.1	.1	.2	12.5	
*		*	.2	1.6	1.6	.8	.3	.1	*	*	3.7	
.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
.1		*	.2	.6	1.1	.4	*	.0	*	.1	3.9	
17		16	79	415	514	195	47	14	8	15	1246	2566
.7		.6	3.1	16.2	20.0	7.6	1.8	.5	.3	.6	48.6	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE
OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)							
	>10	>5	>2	>1	>1/2	>1/4	>50YD	>0
NH >6500	.6	.8	.8	.9	.9	.9	.9	.9
NH >5000	1.0	1.4	1.5	1.5	1.5	1.5	1.5	1.5
NH >3500	2.5	3.2	3.3	3.3	3.3	3.3	3.3	3.3
NH >2000	8.8	10.6	10.8	11.0	11.0	11.0	11.0	11.0
NH >1000	24.4	29.7	30.5	30.8	30.8	30.8	30.8	30.8
NH >600	35.9	44.7	46.4	46.7	46.8	46.8	46.8	46.8
NH >300	37.5	47.5	49.4	49.8	49.9	49.9	49.9	49.9
NH >150	37.8	48.0	50.0	50.5	50.5	50.6	50.6	50.6
NH >0	38.0	48.3	50.6	51.1	51.1	51.2	51.2	51.2
TOTAL	1005	1277	1338	1351	1353	1355	1355	1355

TOTAL NUMBER OF OBS 2646

PCT FREQ NH <5/8 48.6

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	OBS	TOTAL OBS
1.7	5.5	12.7	15.2	13.5	10.7	12.0	9.9	18.5	.3	2814

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PERIOD: (PRIMARY) 1931-1977
(OVER-ALL) 1880-1977AREA 0086 GULF OF PANAMA
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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	*	.0	.0	*	*	.0	.0	.0	.1	
	NO PCP	.0	*	.0	.0	.0	*	*	.0	.0	.0	.1	
	TOT %	.0	*	.0	.0	.0	*	*	.0	.0	.0	.1	
1/2<1	PCP	*	.0	.0	.0	.0	.1	.1	*	.0	.0	.2	
	NO PCP	.0	.0	.0	.0	*	*	*	.0	.0	.0	.1	
	TOT %	*	.0	.0	.0	*	.1	.2	*	.0	.0	.3	
1<2	PCP	*	.1	*	*	.1	.2	.1	.1	.0	*	.7	
	NO PCP	*	.0	.0	*	*	*	.1	*	.0	*	.2	
	TOT %	.1	.1	*	*	.2	.3	.2	.1	.0	.1	.9	
2<5	PCP	.1	*	.0	.2	.3	.6	.4	.2	.0	*	2.0	
	NO PCP	.1	.1	*	.1	.2	.6	.2	.1	.0	.0	1.3	
	TOT %	.2	.1	*	.3	.6	1.2	.6	.3	.0	*	3.2	
5<10	PCP	.2	.2	.4	.4	.9	2.4	1.7	.5	.0	.2	6.9	
	NO PCP	.6	.3	.3	.7	2.0	4.5	3.4	1.1	.0	.5	13.3	
	TOT %	.9	.5	.7	1.1	2.9	6.9	5.1	1.6	.0	.7	20.2	
10+	PCP	.1	.1	.1	.1	.7	1.5	1.1	.3	.0	.3	4.3	
	NO PCP	4.0	2.1	1.9	3.2	10.2	21.3	17.5	6.2	.0	4.6	70.9	
	TOT %	4.1	2.2	2.0	3.3	10.9	22.9	18.6	6.5	.0	4.8	75.2	
TOT OBS													3582
TOT PCT													5.2 2.8 2.7 4.7 14.5 31.4 24.7 8.5 .0 5.6 100.0

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	*	.0	.0	.0	.0	*	*	.0	.0	*	
	11-21	.0	.0	*	*	.0	*	*	*	.0	.0	.1	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	*	*	*	.0	*	*	*	.0	.0	.1	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	*	.0	.0	.0	*	
	4-10	*	.0	.0	*	*	.1	.1	*	.0	.0	.3	
	11-21	.0	*	.0	.0	.0	*	*	*	.0	.0	.1	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	*	*	.0	*	*	.1	.2	*	.0	.0	.4	
1<2	0-3	*	*	.0	*	.1	*	.0	*	.0	*	.2	
	4-10	.0	*	*	*	.1	.2	.2	*	.0	.0	.6	
	11-21	*	.0	.0	.0	.0	.1	.1	*	.0	.0	.2	
	22+	.0	.0	.0	.0	.0	*	.0	.0	.0	.0	*	
	TOT %	.1	*	*	*	.2	.4	.3	.1	.0	*	1.1	
2<5	0-3	.1	*	.0	.2	.1	.1	*	.1	.0	*	.6	
	4-10	.1	.1	*	.1	.4	.6	.5	.2	.0	.0	2.0	
	11-21	.0	.0	.0	.1	.1	.5	.2	.1	.0	.0	.9	
	22+	.0	.0	*	*	.0	.0	*	.0	.0	.0	.1	
	TOT %	.2	.1	.4	.6	.6	1.2	.7	.3	.0	*	3.5	
5<10	0-3	.2	.1	.2	.1	.4	.5	.6	.3	.0	.7	3.1	
	4-10	.6	.3	.4	.6	1.8	3.9	3.1	1.2	.0	.0	12.0	
	11-21	.1	*	*	.2	.6	2.4	1.3	.3	.0	.0	4.9	
	22+	.0	.0	.0	*	*	.1	.0	.0	.0	.0	.1	
	TOT %	.8	.5	.6	1.0	2.9	6.9	5.0	1.7	.0	.7	20.1	
10+	0-3	1.0	.4	.6	.6	1.6	1.7	1.6	.9	.0	5.1	13.4	
	4-10	2.3	1.6	1.1	2.0	7.3	15.1	12.3	4.9	.0	.0	46.6	
	11-21	.6	.1	.1	.5	1.8	5.8	4.6	.9	.0	.0	14.4	
	22+	.0	.0	.0	.0	.1	.1	*	*	.0	.0	.3	
	TOT %	3.9	2.1	1.8	3.0	10.8	22.7	18.5	6.7	.0	5.1	74.6	
TOT OBS													4087
TOT PCT													5.0 2.8 2.6 4.4 14.5 31.3 24.7 8.9 .0 5.9 100.0

PERIOD: (PRIMARY) 1931-1977
(OVER-ALL) 1880-1977

SEPTEMBER

AREA 0036 GULF OF PANAMA
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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NM >4/8) AND
OCCURRENCE OF NM <5/8 BY HOUR

HOURL (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NM <5/8 ANY HGT	TOTAL OBS
00003	.3	.2	2.9	16.0	20.2	7.5	1.7	1.0	.2	1.1	51.0	49.0	630
06009	.3	.6	2.5	13.0	20.4	6.5	.9	1.2	.6	.8	46.8	53.2	647
12015	.8	.9	3.4	16.7	18.7	6.7	2.7	.0	.0	.4	50.3	49.7	772
18021	1.0	.7	3.4	16.5	18.1	9.1	1.3	.4	.4	.0	51.2	48.8	678
TOT	17	17	83	426	526	203	47	17	8	15	1359	1368	2727
PCT	.6	.6	3.0	15.6	19.3	7.4	1.7	.6	.3	.6	49.8	50.2	100.0

TABLE 11

PERCENT FREQUENCY VS BY (NM) BY HOUR

HOURL (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.1	.2	.9	2.6	16.9	79.3	895
06009	.0	.3	1.0	1.8	22.1	74.8	1147
12015	.3	.6	1.5	3.8	21.7	72.1	1099
18021	.5	.5	1.1	5.8	20.8	71.4	1084
TOT	9	17	47	149	869	3134	4225
PCT	.2	.4	1.1	3.5	20.6	74.2	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VS BY (NM) AND/OR
CEILING HGT (FEET, NM >4/8) BY HOUR

HOURL (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND 5+	NM <5/8 AND 5+	TOTAL OBS
00003	.3	3.6	20.8	31.7	47.5	612
06009	.3	3.5	18.2	30.4	51.4	626
12015	.8	5.2	23.6	28.3	48.1	753
18021	1.2	5.6	25.2	28.7	46.1	655
TOT	18	120	584	785	1277	2646
PCT	.7	4.5	22.1	29.7	48.3	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
90/94	.0	.0	.0	.1	.1	.2	.0	.1	12	.4
85/89	.0	.0	.0	.1	.5	2.4	.8	.2	134	4.0
80/84	.0	.0	.0	.0	.6	11.7	28.7	6.9	1589	47.9
75/79	.0	.0	.0	.0	.1	2.2	23.3	20.3	1522	45.9
70/74	.0	.0	.0	.0	.0	.0	.0	.0	56	1.7
65/69	.0	.0	.0	.0	.0	.0	.0	.0	1	.0
TOTAL	0	0	1	6	46	544	1751	966	3314	100.0
PCT	.0	.0	.0	.2	1.4	16.4	52.8	29.1		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
#	.1	.0	.0	.1	.1	.1	.0	.0	.0	.0
.3	.2	.1	.6	.7	.7	.9	.3	.0	.3	.3
3.4	1.3	1.1	2.0	6.9	13.7	11.8	4.6	.0	3.0	.0
1.3	1.0	1.1	1.9	6.6	16.9	11.9	3.3	.0	2.0	.0
.1	.1	.1	.1	.1	.6	.5	.2	.0	.0	.0
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5.1	2.6	2.4	4.6	14.4	32.0	25.1	8.4	.0	3.4	.0

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOURL (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	91	86	84	80	76	74	70	79.9	1081
06009	90	84	82	79	76	74	64	79.2	1424
12015	87	84	82	79	76	74	71	79.0	1300
18021	93	89	86	81	75	73	64	80.7	1320
TOT	93	87	84	80	76	74	64	79.7	5125

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOURL (GMT)	0-29	30-39	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	.3	.9	17.4	57.9	23.6	85	781
06009	.0	.0	1.0	9.6	58.2	31.2	87	892
12015	.0	.1	.5	9.1	51.7	38.6	87	923
18021	.0	.5	2.9	30.3	43.0	23.3	83	849
TOT	0	7	46	563	1813	1016	86	3445

PERIOD: (PRIMARY) 1931-1977
(OVER-ALL) 1880-1977

SEPTEMBER

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TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	61 54	65 58	69 72	73 76	77 80	81 84	85 88	89 92	>92	TOT	W FOG	NO FOG
11/13	.0	.0	.0	.0	.0	.0	*	*	*	3	.0	.1
9/10	.0	.0	.0	.0	.1	*	*	*	.2	10	.0	.3
7/8	.0	.0	.0	.0	.2	.1	.2	.2	.0	25	.0	.8
6	.0	.0	.0	*	*	.2	.2	*	.0	15	.0	.5
5	.0	.0	.0	*	.1	.2	.2	.1	.0	21	.0	.6
4	.0	.0	.0	*	.2	.5	.5	.0	.0	38	.0	1.1
3	.0	.0	.0	.1	.1	.5	.6	*	.0	42	.0	1.3
2	.0	.0	.0	.0	.4	1.8	.8	.0	.0	98	.0	3.0
1	.0	.0	.0	.1	.9	2.8	.2	.0	.0	133	*	4.0
0	.0	.0	.0	.1	4.0	6.8	.5	.0	.0	377	.2	11.2
-1	.0	.0	.0	.2	7.7	6.3	.1	.0	.0	474	.2	14.1
-2	*	.0	.0	.3	12.3	5.3	.1	.0	.0	602	.2	18.0
-3	.0	.0	.0	.9	11.4	2.9	.1	.0	.0	505	.1	15.2
-4	*	.0	.0	1.1	8.8	1.8	*	.0	.0	392	.1	11.8
-5	.0	.0	.0	1.4	5.9	.8	.0	.0	.0	268	.0	8.1
-6	.0	.0	.0	1.4	2.8	.1	.0	.0	.0	139	.0	4.2
-7/-8	.0	.0	.0	1.2	2.4	.1	.0	.0	.0	123	*	3.7
-9/-10	.0	.0	*	.6	.2	.0	.0	.0	.0	30	.0	.9
-11/-13	.0	.0	.2	.1	.1	.0	.0	.0	.0	13	.0	.4
-14/-16	.0	.0	*	.0	.0	.0	.0	.0	.0	1	.0	*
TOTAL	2	0	8	1914	121	17	1	1	1	3309	27	3282
PCT	.1	.0	.2	245	1001	3.7	.5	*	*	100.0	.8	99.2

PERIOD: (OVER-ALL) 1963-1977

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	N						PCT	NE						PCT
	1-3	4-10	11-21	22-33	34-47	48+		1-3	4-10	11-21	22-33	34-47	48+	
<1	.7	.4	.0	.0	.0	.0	1.0	.1	.4	.1	.0	.0	.0	.6
1-2	.2	1.5	.4	.0	.0	.0	2.1	.1	1.4	.0	.0	.0	.0	1.5
3-4	.0	.8	.3	.0	.0	.0	1.1	.0	.2	.1	.0	.0	.0	.3
5-6	.1	.1	.1	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.9	2.8	.7	.0	.0	.0	4.4	.2	2.0	.2	.0	.0	.0	2.4

HGT	E						PCT	SE						PCT
	1-3	4-10	11-21	22-33	34-47	48+		1-3	4-10	11-21	22-33	34-47	48+	
<1	.3	.4	.0	.0	.0	.0	.7	*	.7	.2	.0	.0	.0	.9
1-2	.4	.5	.0	.0	.0	.0	.9	.2	1.5	.4	.0	.0	.0	2.1
3-4	.0	.3	.1	.0	.0	.0	.4	.1	.5	.4	.0	.0	.0	.9
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1	.0	.0	.0	.2
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.7	1.2	.1	.0	.0	.0	2.0	.3	2.9	1.0	.0	.0	.0	4.1

PERIOD: (OVER-ALL) 1963-1977

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AREA 0036 GULF OF PANAMA
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TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.9	2.2	.1	.0	.0	.0	3.1	1.5	1.8	.2	.0	.0	.0	3.6
1-2	.8	5.3	1.0	.0	.0	.0	7.1	.7	10.7	1.6	.0	.0	.0	13.0
3-4	.3	2.9	1.4	.0	.0	.0	4.7	.3	5.1	4.8	.1	.0	.0	10.3
5-6	.0	.4	.3	.0	.0	.0	.7	.0	.7	2.8	.1	.0	.0	3.6
7	.0	.0	.3	.1	.0	.0	.3	.0	.1	.8	.0	.0	.0	.9
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.2
10-11	.0	.0	.1	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	2.0	10.9	3.2	.1	.0	.0	16.1	2.5	18.5	10.4	.2	.0	.0	31.7

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.9	1.7	.1	.0	.0	.0	2.8	.2	1.3	.0	.0	.0	.0	1.4	
1-2	.8	8.9	1.7	.0	.0	.0	11.4	.4	3.0	.7	.0	.0	.0	4.1	
3-4	.1	3.8	3.6	.0	.0	.0	7.5	.0	1.4	.4	.1	.0	.0	1.8	
5-6	.0	.3	2.3	.0	.0	.0	2.6	.0	.1	.3	.0	.0	.0	.4	
7	.0	.0	.4	.0	.0	.0	.4	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.1	.0	.1	.0	.2	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.1	.1	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.1	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	1.8	14.8	5.4	.0	.1	.0	25.1	.6	5.7	1.3	.1	.0	.0	7.7	93.5

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT DBS
<1	11.8	9.4	.6	.0	.0	.0	21.8	
1-2	3.9	32.8	5.5	.0	.0	.0	42.2	
3-4	.8	14.4	10.8	.2	.0	.0	26.2	
5-6	.1	1.6	5.7	.1	.0	.0	7.4	
7	.0	.1	1.4	.1	.0	.0	1.5	
8-9	.0	.1	.4	.0	.1	.0	.5	
10-11	.0	.1	.1	.0	.0	.0	.2	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.1	.0	.0	.0	.0	.1	
17-19	.0	.0	.1	.0	.0	.0	.1	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	16.5	58.5	24.6	.4	.1	.0	100.0	1387

PERIOD: (OVER-ALL) 1949-1977

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	5.8	19.6	19.1	7.2	1.7	.3	.1	.0	*	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	1234	3
6-7	*	2.1	8.1	7.2	2.1	.5	.1	.0	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	461	4
8-9	.0	.9	3.2	2.6	1.3	*	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	194	4
10-11	.0	.7	.7	.5	.4	.3	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	60	4
12-13	.0	.0	.9	.4	.1	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	33	4
>13	.0	.0	.0	.6	.1	.0	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	19	6
INDET	5.9	1.9	2.7	1.5	.2	*	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	284	2
TOTAL	269	576	791	459	137	33	8	2	6	1	1	0	0	0	0	0	0	0	0	2285	3
PCT	11.8	25.2	34.6	20.1	6.0	1.5	.4	.1	.3	*	*	.0	.0	.0	.0	.0	.0	.0	.0	100.0	

PERIOD: (PRIMARY) 1933-1977
(OVER-ALL) 1861-1977

OCTOBER

AREA 0036 GULF OF PANAMA
6.8N 79.9W

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

PRECIPITATION TYPE										OTHER WEATHER PHENOMENA					
WIND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST BLWG SNOW	NO SIG WEA
N	8.8	5.9	.5	.0	.0	.0	.0	15.2	2.5	5.2	.0	.0	.7	.0	76.9
NE	10.2	2.5	3.4	.0	.0	.0	.0	14.4	5.9	9.3	.0	.0	.4	.0	72.0
E	9.7	0.8	1.0	.0	.0	.0	.0	19.0	5.9	5.2	.0	.0	1.0	.0	69.9
SE	7.5	2.8	2.0	.0	.0	.0	.0	12.2	9.4	3.9	.4	.0	.0	.0	74.2
S	5.9	0.5	2.2	.0	.0	.0	.0	14.5	7.0	3.4	.4	.0	.0	.0	74.8
SW	10.0	0.6	3.8	.0	.0	.0	.0	20.2	5.5	3.1	.4	.0	.1	.0	71.1
W	9.3	0.2	2.5	.0	.0	.0	.0	17.8	6.6	4.3	.3	.0	.1	.0	71.6
NW	9.3	4.3	1.2	.0	.0	.0	.0	14.5	2.7	6.2	.4	.0	.0	.4	75.7
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	4.5	4.5	.0	.0	.0	.0	.0	9.0	5.3	5.3	.0	.0	.0	.0	81.2
TOT PCT	8.8	6.0	2.6	.0	.0	.0	.0	17.3	5.9	4.0	.3	.0	.1	*	72.8
TOT OBS:	3825														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA								
	RAIN	RAIN SHMR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST JUST SNOW	NO SIG WEA
00003	6.5	2.5	2.0	.0	.0	.0	.0	11.7	5.0	5.7	.3	.0	.0	.0	.0	77.7
06009	8.1	7.7	2.9	.0	.0	.0	.0	18.7	6.0	9.5	.4	.0	.0	.0	.0	66.2
12015	8.8	0.3	2.5	.0	.0	.0	.0	17.5	7.3	1.7	.3	.0	.2	.1	.73.2	
18021	11.4	0.7	3.0	.0	.0	.0	.0	20.9	5.1	.4	.4	.0	.3	.0	.73.3	
TOT PCT TOT OBS:	8.8 3971	6.1	2.6	.0	.0	.0	.0	17.4	5.9	4.2	.4	.0	.1	*		72.5

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)						
	0-3	4-10	11-21	22-33	34-47	48+	00				03	06	09	12	15	18	21
N	.6	2.6	.6	*	.0	.0		3.8	7.4	2.5	.0	4.2	5.1	4.5	1.9	4.4	1.8
NE	.2	1.1	.2	.0	.0	.0		1.6	6.8	1.3	.0	1.2	1.8	1.5	2.4	2.3	1.6
E	.3	1.1	.2	.0	.0	.0		1.6	7.0	.9	2.3	2.0	.8	1.7	.5	2.2	2.0
SE	.6	1.9	.6	.0	.0	.0		3.1	7.2	2.8	.0	2.5	1.7	2.7	3.4	4.0	6.5
S	1.5	8.9	4.4	.1	.0	.0		14.9	8.9	19.6	11.6	13.3	14.3	11.5	13.7	15.3	19.2
SW	2.1	20.8	14.1	.5	*	.0		37.4	10.0	36.7	37.8	35.7	34.4	37.9	34.6	40.6	37.8
W	1.9	16.3	8.2	.4	*	.0		26.8	9.4	26.2	37.2	29.7	31.0	28.4	28.8	22.1	20.1
NW	.7	4.8	1.3	*	.0	.0		6.8	8.0	5.7	4.1	7.7	7.3	8.4	9.9	5.1	5.7
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	4.0							4.0	.0	4.2	7.0	3.9	3.6	3.5	4.8	3.9	5.1
TOT OBS	612	2979	1534	51	1	0	5177		8.9	1046	43	1081	331	1261	104	1038	273
TOT PCT	11.8	57.5	29.6	1.0	*	.0		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)					TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)			
	0-6	7-16	17-27	28-40	41+				00	06	12	18
N	2.0	1.7	.1	*	.0		3.8	7.4	2.4	4.4	4.3	3.9
NE	1.0	.5	*	.0	.0		1.6	6.8	1.3	1.3	1.5	2.2
E	.9	.7	*	.0	.0		1.6	7.0	.9	1.7	1.6	2.2
SE	1.6	1.4	.1	.0	.0		3.1	7.2	2.7	2.3	2.8	4.6
S	5.4	8.6	1.0	.0	.0		14.9	8.9	19.3	13.3	11.6	16.1
SW	9.7	24.2	3.5	*	.0		37.4	10.0	36.7	35.4	37.6	43.0
W	8.2	16.6	1.9	.1	.0		26.8	9.4	26.7	30.0	28.4	21.7
NW	2.9	3.7	.3	.0	.0		6.8	8.0	5.7	7.6	8.5	5.2
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0
CALM	4.0						4.0	.0	4.2	3.8	3.6	4.2
TOT OBS	1843	2976	353	5	0	5177		8.9	1089	1412	1365	1311
TOT PCT	35.6	57.5	6.8	.1	.0		100.0		100.0	100.0	100.0	100.0

PERIOD: (PRIMARY) 1933-1977
(OVER-ALL) 1861-1977

OCTOBER

AREA 0036 GULF OF PANAMA
6.8N 79.9W

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)			48+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47				
00003	4.3	6.9	55.1	32.6	1.1	.0	.0	9.1	100.0	1089
06009	3.8	6.7	60.1	28.3	1.1	.0	.0	8.9	100.0	1412
12015	3.6	8.7	57.3	29.3	1.0	.1	.0	8.9	100.0	1365
18021	4.2	9.0	57.1	29.0	.8	.0	.0	8.7	100.0	1311
TOT	205	407	2979	1534	51	1	0	8.9		5177
PCT	4.0	7.9	57.5	29.6	1.0	*	.0		100.0	

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	.2	.8	1.7	1.1		6.0
NE	.1	.3	.6	.3		5.7
E	.1	.4	1.0	.7		6.2
SE	.1	.3	1.4	1.5		6.6
S	.0	2.2	6.6	5.5		6.3
SW	1.7	4.4	17.3	14.6		6.4
W	1.3	3.5	12.1	9.4		6.3
NW	.6	1.3	3.1	1.9		5.8
VAR	.0	.0	.0	.0		.0
CALM	.5	.6	1.4	.9		5.5
TOT OBS	141	380	1246	989	2756	6.3
TOT PCT	5.1	13.8	45.2	35.9	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8)
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

000	150	300	600	1000	2000	3500	5000	6500	8000+	NH <5/8 ANY HGT	TOTAL OBS
149	299	599	999	1999	3499	4999	6499	7999			
*	.1	*	.3	1.0	.2	.2	*	.0	.0	2.0	
.0	.0	*	.1	.3	.1	*	.0	.0	*	.7	
*	*	.1	.2	.5	.2	*	.0	.0	.0	1.0	
.0	.1	.2	.5	.8	.2	*	*	*	.0	1.4	
.2	.1	.4	2.7	3.1	1.2	.4	.1	*	.1	6.6	
.3	.4	1.8	6.3	8.6	3.1	1.1	.5	*	*	15.9	
.1	.3	.8	4.4	5.4	1.9	.9	.2	*	.0	12.1	
*	*	.2	.9	1.3	.4	.2	*	.0	.0	3.7	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
.0	.1	*	.3	.6	.1	*	.0	*	.0	2.2	
21	29	101	435	596	207	80	22	3	4	1258	2756
.8	1.1	3.7	15.8	21.6	7.5	2.9	.8	.1	.1	45.6	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE
OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)							
	= OR >10	= OR >5	= OR >2	= OR >1	= OR >1/2	= OR >1/4	= OR >50YD	= OR >0
= OR >6500	.1	.2	.2	.2	.2	.2	.2	.2
= OR >5000	.6	1.0	1.0	1.0	1.0	1.0	1.0	1.0
= OR >3500	2.7	3.8	3.9	3.9	3.9	3.9	3.9	3.9
= OR >2000	8.7	11.0	11.3	11.4	11.4	11.4	11.4	11.4
= OR >1000	24.9	31.8	32.9	33.1	33.1	33.2	33.2	33.2
= OR >600	34.7	46.2	48.0	48.4	48.5	48.6	48.6	48.6
= OR >300	36.6	49.2	51.5	52.0	52.1	52.3	52.3	52.3
= OR >150	36.9	49.8	52.4	52.9	53.1	53.3	53.3	53.3
= OR >0	36.9	50.2	53.0	53.6	53.7	54.0	54.0	54.1
TOTAL	1090	1429	1508	1524	1528	1535	1536	1538

TOTAL NUMBER OF OBS: 2844

PCT FREQ NH <5/8: 45.9

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	OBSCD	TOTAL OBS
1.0	4.6	12.6	13.4	13.7	10.5	13.0	9.6	21.1	.5	3005

PERIOD: (PRIMARY) 1933-1977
(OVER-ALL) 1861-1977

OCTOBER

AREA 0036 GULF OF PANAMA
6.8N 79.9W

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	*	.0	.0	.1	.1	.1	.1	.0	.0	.3	
	NO PCP	.0	.0	.0	.0	.0	.1	.1	*	.0	.0	.1	
	TOT %	.0	*	.0	.0	.1	.1	.1	.1	.0	.0	.4	
1/2<1	PCP	.0	.0	*	.0	*	.2	*	*	.0	.0	.3	
	NO PCP	.0	.0	.0	*	*	*	*	.0	.0	.0	.1	
	TOT %	.0	.0	*	*	*	.2	.1	*	.0	.0	.4	
1<2	PCP	.1	.0	*	*	*	.2	.2	*	.0	.0	.5	
	NO PCP	.0	.0	.0	.0	*	.1	.1	.0	.0	.0	.1	
	TOT %	.1	.0	*	*	.1	.3	.2	*	.0	.0	.7	
2<5	PCP	.1	*	.1	*	.2	1.0	.5	.1	.0	*	1.9	
	NO PCP	.0	*	.0	.1	.3	.6	.4	.1	.0	.1	1.4	
	TOT %	.1	*	.1	.1	.4	1.6	.8	.2	.0	.1	3.3	
5<10	PCP	.3	.1	.2	.2	1.2	4.0	2.5	.5	.0	.2	9.2	
	NO PCP	.6	.3	.3	.6	2.5	5.4	4.6	1.1	.0	.7	16.2	
	TOT %	.9	.4	.5	.8	3.7	9.4	7.1	1.6	.0	1.0	25.4	
10+	PCP	.2	.1	.1	.2	.7	2.0	1.6	.3	.0	.1	5.0	
	NO PCP	2.6	1.0	1.2	2.2	9.9	23.7	17.2	4.5	.0	2.4	64.8	
	TOT %	2.8	1.1	1.3	2.3	10.5	25.6	18.8	4.9	.0	2.4	69.8	
TOT OBS													3813
TOT PCT		3.9	1.5	1.9	3.3	14.8	37.3	27.1	6.7	.0	3.5	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	*	.0	.0	.0	.0	.0	.0	.0	*	
	4-10	.0	.0	.0	.0	.1	*	.1	*	.0	.0	.2	
	11-21	.0	*	.0	.0	*	.1	*	*	.0	.0	.2	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	*	*	.0	.1	.1	.1	.1	.0	.0	.4	
1/2<1	0-3	.0	.0	.0	*	.0	.0	.0	.0	.0	.0	*	
	4-10	.0	.0	.0	.0	*	.1	.1	*	.0	.0	.3	
	11-21	.0	.0	*	.0	*	.1	*	.0	.0	.0	.2	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	*	*	.1	.3	.1	*	.0	.0	.5	
1<2	0-3	.0	.0	.0	.0	.0	*	*	.0	.0	.0	*	
	4-10	*	*	.0	*	.2	.1	*	*	.0	.0	.5	
	11-21	*	*	*	*	.2	.1	*	*	.0	.0	.5	
	22+	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	*	
	TOT %	.1	*	*	.1	.1	.4	.3	.1	.0	.0	1.0	
2<5	0-3	.0	.0	.0	.0	*	.1	*	*	.0	.1	.3	
	4-10	.1	.1	*	.1	.3	.7	.4	.1	.0	.0	1.7	
	11-21	*	*	*	.1	.2	.7	.4	.1	.0	.0	1.4	
	22+	.0	.0	.0	.0	.0	*	*	.0	.0	.0	*	
	TOT %	.1	.1	*	.1	.5	1.6	.9	.2	.0	.1	3.5	
5<10	0-3	.1	*	*	.2	.5	.4	.4	.2	.0	.9	2.7	
	4-10	.6	.3	.3	.4	1.7	4.8	3.9	.9	.0	.0	12.9	
	11-21	.2	.1	.1	.2	1.4	3.7	2.3	.4	.0	.0	8.5	
	22+	*	.0	.0	.0	*	.3	.1	.0	.0	.0	.4	
	TOT %	.9	.4	.5	.8	3.6	9.3	6.7	1.5	.0	.9	24.5	
10+	0-3	.4	.2	.2	.4	1.1	1.4	1.3	.6	.0	2.6	8.4	
	4-10	2.0	.8	.8	1.6	6.7	14.7	11.1	3.5	.0	.0	41.3	
	11-21	.4	.1	.1	.3	3.0	9.4	3.7	.7	.0	.0	19.7	
	22+	.0	.0	.0	.0	.1	.2	.2	*	.0	.0	.6	
	TOT %	2.8	1.2	1.2	2.3	10.8	29.8	18.4	4.8	.0	2.6	70.0	
TOT OBS													4327
TOT PCT		3.9	1.7	1.8	3.3	15.1	37.4	26.5	6.7	.0	3.7	100.0	

OCTOBER

PERIOD: (PRIMARY) 1933-1977
(OVER-ALL) 1861-1977

AREA 0036 GULF OF PANAMA
6.8N 79.9W

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NM >4/8) AND
OCCURRENCE OF NM <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 399	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NM <5/8 ANY HGT	TOTAL OBS
00003	.6	.8	3.6	14.4	18.7	7.4	2.1	.6	.3	.2	48.7	51.3	699
06009	.5	.9	2.6	13.1	21.8	7.1	3.9	.9	.0	.0	50.7	49.3	665
12015	.9	1.4	3.3	16.6	22.2	6.8	3.0	1.0	.0	.0	55.2	44.8	886
18021	.9	.9	5.0	16.9	22.1	8.3	2.3	.4	.1	.4	57.3	42.7	700
TOT	21	29	105	447	620	214	83	22	3	4	1548	1362	2910
PCT	.7	1.0	3.6	15.4	21.3	7.4	2.9	.8	.1	.1	53.2	46.8	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.3	.2	1.5	3.8	22.0	72.3	956
06009	.6	.5	.3	2.2	25.5	70.8	1180
12015	.3	.6	.7	3.7	23.5	71.2	1209
18021	.5	.5	1.8	4.5	27.0	65.7	1128
TOT	20	21	46	158	1099	3129	4473
PCT	.4	.5	1.0	3.5	24.6	70.0	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR
CEILING HGT (FEET, NM >4/8) BY HOUR

HOUR (GMT)	<150 <500	<600 <1	<1000 <5	1000+ AND 5+	NM <5/8 AND 5+	TOTAL OBS
00003	.6	5.2	21.2	29.4	49.4	633
06009	.6	4.5	18.5	33.3	48.1	648
12015	.9	5.9	23.8	32.1	44.1	875
18021	.9	7.0	25.7	32.0	42.3	688
TOT	22	162	639	903	1302	2844
PCT	.8	5.7	22.5	31.8	45.8	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
90/94	.0	.0	.0	*	.2	.1	.1	*	12	.3
85/89	.0	.0	.0	.1	.6	1.7	.5	.1	105	3.0
80/84	.0	.0	*	.0	.8	9.2	24.2	5.6	1389	39.8
75/79	.0	.0	.0	*	.1	3.1	26.6	25.1	1918	54.9
70/74	.0	.0	.0	.0	.0	.1	.3	1.5	65	1.9
65/69	.0	.0	.0	.0	.0	.0	.0	.1	2	.1
TOTAL	0	0	1	4	60	494	1801	1131	3491	100.0
PCT	.0	.0	*	.1	1.7	14.2	51.6	32.4		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
*	.0	*	.0	*	.1	.1	.1	.0	*
.1	.2	.2	.3	.4	.9	.5	.2	.0	.2
1.9	.8	.7	1.5	5.9	13.1	10.2	3.2	.0	2.3
1.7	.5	.8	1.1	7.2	23.4	15.7	3.2	.0	1.3
.1	.1	.0	*	.4	.8	.4	.1	.0	*
.0	.0	.0	*	.1	.0	.0	.0	.0	.0
3.8	1.5	1.7	3.0	14.1	38.4	26.9	6.8	.0	3.9

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	90	85	83	79	76	74	69	79.2	1118
06009	86	83	82	79	76	74	64	78.8	1452
12015	90	84	82	79	75	73	65	78.7	1388
18021	93	90	86	80	75	73	68	80.6	1334
TOT	93	87	84	79	75	74	64	79.3	5292

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-39	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	.2	.4	13.0	57.4	28.9	86	806
06009	.0	.0	.9	9.4	55.7	34.0	87	923
12015	.0	.0	.5	8.4	49.3	41.8	88	1022
18021	.0	.3	5.1	27.2	44.5	22.8	83	878
TOT	0	5	61	517	1872	1174	86	3629

OCTOBER

PERIOD: (PRIMARY) 1933-1977
(OVER-ALL) 1861-1977

TABLE 17

AREA 0036 GULF OF PANAMA
6.8N 79.9WPCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	61 64	65 68	69 72	73 76	77 80	81 84	85 88	89 92	>92	TOT FOG	W FOG	WD FOG
14/16	.0	.0	.0	.0	.1	.1	.1	.1	.0	4	.0	.1
11/13	.0	.0	.0	.0	.0	.1	.1	.1	.0	5	.0	.1
9/10	.0	.0	.0	.0	.1	.1	.1	.1	.0	9	.0	.2
7/8	.0	.0	.0	.0	.2	.1	.2	.1	.0	23	.0	.6
6	.0	.0	.0	.0	.1	.1	.3	.1	.0	19	.0	.5
5	.0	.0	.0	.0	.1	.2	.2	.1	.0	23	.0	.6
4	.0	.0	.0	.0	.1	.7	.6	.0	.0	49	.0	1.4
3	.0	.0	.0	.0	.2	.9	.4	.0	.0	54	.0	1.5
2	.0	.0	.0	.1	.7	1.7	.3	.1	.0	100	.0	2.8
1	.0	.0	.0	.1	1.7	2.6	.4	.0	.0	167	.0	4.6
0	.0	.0	.0	.2	5.4	5.2	.2	.0	.0	395	.1	10.8
-1	.0	.0	.0	.2	9.8	3.9	.1	.0	.0	507	.1	13.9
-2	.0	.0	.0	.5	13.5	4.3	.1	.0	.0	669	.1	18.4
-3	.0	.0	.0	.9	11.2	2.5	.0	.0	.0	529	.1	14.5
-4	.0	.0	.0	2.0	9.4	1.0	.0	.0	.0	448	.1	12.3
-5	.0	.0	.0	2.2	5.6	.7	.0	.0	.0	307	.0	8.5
-6	.0	.0	.0	1.3	2.1	.2	.0	.0	.0	135	.0	3.7
-7/-8	.0	.0	.0	1.9	2.1	.1	.0	.0	.0	149	.1	4.1
-9/-10	.0	.0	.0	.1	.6	.2	.0	.0	.0	31	.0	.9
-11/-13	.0	.0	.0	.1	.1	.0	.0	.0	.0	5	.0	.1
TOTAL	1	1	5	358	877	103	16	1	3628	14	3614	
PCT	*	*	.1	9.9	62.5	24.2	2.8	.4	*	100.0	.4	99.6

PERIOD: (OVER-ALL) 1963-1977

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.1	.6	.0	.0	.0	.0	.7	.1	.2	.0	.0	.0	.0	.4
1-2	.0	2.1	.5	.0	.0	.0	2.7	.1	.4	.0	.0	.0	.0	.5
3-4	.2	.3	.2	.0	.0	.0	.6	.1	.2	.1	.0	.0	.0	.3
5-6	.0	*	.1	.0	.0	.0	.1	.0	.0	.1	.0	.0	.0	.1
7	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.2	3.1	.8	.0	.0	.0	4.1	.2	.9	.2	.0	.0	.0	1.4

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.1	.6	.0	.0	.0	.0	.7	.4	.6	.0	.0	.0	.0	1.0
1-2	.0	.3	.3	.0	.0	.0	.6	.1	1.0	.3	.0	.0	.0	1.4
3-4	.0	.2	.2	.0	.0	.0	.5	.0	.6	.4	.0	.0	.0	1.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.2	.1	.0	.0	.0	.3
7	.0	.0	.1	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	*
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.1
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.1	1.2	.6	.0	.0	.0	1.9	.5	2.4	.9	.0	.0	.0	3.8

PERIOD: (OVER-ALL) 1963-1977

OCTOBER

TABLE 18 (CONT)

AREA 0036 GULF OF PANAMA
6.8N 79.9W

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	S							PCT	SW							PCT
	1-3	4-10	11-21	22-33	34-47	48+	1-3		4-10	11-21	22-33	34-47	48+			
<1	.4	1.2	*	.0	.0	.0	1.7	.3	1.7	.1	.0	.0	.0	2.1		
1-2	.5	4.2	1.0	.0	.0	.0	5.7	.5	12.1	3.5	.0	.0	.0	16.1		
3-4	.0	2.0	2.4	.1	.0	.0	4.5	.2	7.2	5.9	*	.0	.0	13.3		
5-6	.1	.4	1.2	.0	.0	.0	1.6	.0	.8	4.5	.1	.0	.0	5.5		
7	.0	.0	.4	.0	.0	.0	.4	.0	.2	1.1	.1	.0	.0	1.5		
8-9	.0	.0	.0	.0	.0	.0	.0	.1	.0	.4	*	.0	.0	.5		
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	*	*		
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.1		
13-16	.0	.0	.0	.0	.0	.0	.0	.0	*	.0	.0	.0	.0	*		
17-19	.0	*	.0	.0	.0	.0	*	.0	*	.0	.0	.0	.0	*		
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
TOT PCT	1.0	7.9	5.1	.1	.0	.0	14.1	1.0	22.1	15.7	.3	*	.0	39.2		

HGT	W							PCT	NW							PCT	TOTAL PCT
	1-3	4-10	11-21	22-33	34-47	48+	1-3		4-10	11-21	22-33	34-47	48+				
<1	.7	2.0	.2	.0	.0	.0	2.9	.4	.9	*	.0	.0	.0	1.4			
1-2	.6	8.8	2.0	.0	.0	.0	11.3	.2	2.4	.6	.0	.0	.0	3.2			
3-4	.1	4.3	3.6	.1	.0	.0	8.2	.1	1.1	.6	.0	.0	.0	1.7			
5-6	.0	.7	1.6	.1	.0	.0	2.4	.0	.1	.2	.0	.0	.0	.3			
7	.0	.0	.3	.1	.0	.0	.4	.0	.0	.0	.0	.0	.0	.0			
8-9	.0	.0	.2	*	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0			
10-11	.0	.0	.1	.1	*	.0	.3	.0	.0	.0	.0	.0	.0	.0			
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0			
13-16	.0	*	.0	.0	.0	.0	*	.0	.0	.0	.0	.0	.0	.0			
17-19	.0	.1	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0			
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0			
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0			
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0			
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0			
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0			
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0			
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0			
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0			
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0			
TOT PCT	1.5	15.9	8.1	.5	*	.0	26.1	.7	4.5	1.4	.0	.0	.0	6.7			
														97.3			

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT DBS
<1	7.0	8.0	.4	.0	.0	.0	15.4	
1-2	2.6	30.9	8.1	.0	.0	.0	41.5	
3-4	.6	15.4	13.0	.2	.0	.0	29.3	
5-6	.1	2.2	7.5	.3	.0	.0	10.0	
7	.0	.3	1.9	.2	.0	.0	2.4	
8-9	.1	.1	.6	.1	.0	.0	.8	
10-11	.0	.0	.1	.1	.1	.0	.3	
12	.0	.0	.1	.0	.0	.0	.1	
13-16	.0	.1	.0	.0	.0	.0	.1	
17-19	.0	.1	.0	.0	.0	.0	.1	
20-22	.0	.0	.1	.0	.0	.0	.1	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	10.4	57.0	31.8	.8	.1	.0	100.0	1555

PERIOD: (OVER-ALL) 1949-1977

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	4.1	18.4	21.6	7.5	2.5	1.0	.4	.2	.0	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	1382	3
6-7	.2	1.8	9.5	7.7	2.4	.4	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	355	4
8-9	.1	.6	1.6	2.3	1.6	.6	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	172	5
10-11	.0	.6	.5	.6	.7	*	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	62	4
12-13	.0	.0	.9	.4	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	37	4
>13	.0	.0	.0	.3	.2	*	.1	*	*	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	20	9
INDET	4.3	2.2	2.4	1.0	.3	.2	.0	.0	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	238	2
TOTAL	214	587	909	490	197	55	19	8	3	2	2	0	0	0	0	0	0	0	0	2486	3
PCT	8.6	23.6	36.6	19.7	7.9	2.2	.8	.3	.1	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	100.0	

PERIOD: (PRIMARY) 1931-1977
(OVER-ALL) 1868-1977

NOVEMBER

AREA 0036 GULF OF PANAMA
6.8N 79.9W

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							NO SIG WEA
	RAIN	RAIN SHMR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FDG WD PCPN	FDG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG SNOW	
N	3.6	1.7	.8	.0	.0	.0	.0	6.0	2.2	4.7	1.4	.0	.0	.0	86.3
NE	1.9	2.6	2.6	.0	.0	.0	.0	7.2	5.1	5.8	2.6	.0	.8	.0	78.9
E	11.9	2.7	4.4	.0	.0	.0	.0	19.0	6.8	6.1	.0	.0	1.4	.0	66.7
SE	11.3	2.3	.3	.0	.0	.0	.2	14.0	11.5	.5	.0	.3	.3	.0	73.4
S	10.6	5.5	2.9	.0	.0	.0	.2	18.6	10.0	3.2	.4	.2	.2	.0	67.9
SW	9.7	7.2	2.9	.0	.0	.0	.1	19.7	8.0	2.7	1.0	.0	.0	.0	69.1
W	7.0	7.1	2.2	.0	.0	.0	.0	16.2	5.9	3.7	.4	.0	.0	.2	73.7
NW	4.7	5.7	2.0	.0	.0	.0	.0	12.4	2.5	3.1	.3	.0	.2	.0	81.7
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.7	3.5	.7	.0	.0	.0	.0	5.0	4.3	2.1	.0	.0	.7	.0	87.9
TOT PCT	7.3	5.7	2.3	.0	.0	.0	.1	15.2	6.2	3.3	.7	*	.1	.1	74.6
TOT OBS:	3569														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							NO SIG WEA
	RAIN	RAIN SHMR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FDG WD PCPN	FDG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG SNOW	
00003	5.2	5.0	1.5	.0	.0	.0	.1	11.8	4.1	6.4	.4	.1	.4	.0	77.2
06009	7.3	6.2	2.6	.0	.0	.0	.1	15.9	6.2	7.4	1.8	.0	.0	.0	69.6
12015	8.4	6.8	2.4	.0	.0	.0	.0	17.4	6.8	1.0	.4	.0	.0	.1	74.3
18021	8.2	5.5	2.5	.0	.0	.0	.0	16.0	6.6	.1	.5	.0	.2	.1	76.4
TOT PCT	7.4	6.0	2.3	.0	.0	.0	.1	15.5	6.0	3.6	.8	*	.1	.1	74.2
TOT OBS:	3705														

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)						
	0-3	4-10	11-21	22-33	34-47	48+	00				03	06	09	12	15	18	21
N	.9	6.3	3.5	.1	.0	.0		10.8	9.2	8.9	11.8	9.5	12.3	12.9	11.3	10.8	10.7
NE	.6	2.6	.8	*	.0	.0		4.0	7.8	3.0	4.2	3.3	4.6	4.1	2.4	5.1	5.2
E	.5	1.4	.2	.0	*	.0		2.2	6.5	1.9	6.9	2.1	1.2	1.4	3.0	3.0	3.7
SE	.6	1.7	.4	*	.0	.0		2.7	7.0	3.7	.0	2.3	1.6	2.5	4.8	2.7	3.6
S	1.3	5.9	2.4	*	.0	.0		9.7	8.2	13.3	8.3	9.2	7.6	7.3	4.6	11.0	9.8
SW	1.7	17.5	10.5	.2	.0	.0		29.9	9.7	33.3	20.8	27.8	29.0	27.3	30.9	32.8	29.1
W	1.5	14.9	6.1	.2	.0	.0		22.8	8.9	19.5	25.7	25.0	20.4	24.8	28.8	21.6	21.9
NW	1.3	9.5	2.9	.1	.0	.0		13.8	8.1	11.3	16.7	16.0	19.5	15.6	12.1	10.0	12.5
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	4.1							4.1	.0	5.2	5.6	4.7	3.7	4.1	2.2	2.9	3.6
TOT OBS	631	2986	1333	34	1	0	4985		8.5	948	36	1064	353	1243	93	995	253
TOT PCT	12.7	59.9	26.7	.7	*	.0		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	0-6	WIND SPEED (KNOTS)				41+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)			
		7-16	17-27	28-40	00 03					06 09	12 15	18 21	
N	3.7	6.1	.9	*	.0		10.8	9.2	9.0	10.2	12.8	10.7	
NE	1.9	1.9	.2	*	.0		4.0	7.8	3.0	3.7	3.9	5.1	
E	1.3	.8	*	*	.0		2.2	6.5	2.1	1.9	1.6	3.2	
SE	1.5	1.1	.1	*	.0		2.7	7.0	3.5	2.1	2.7	2.9	
S	4.2	5.2	.4	*	.0		9.7	8.2	13.2	8.8	7.1	10.8	
SW	8.3	18.9	2.6	*	.0		29.9	9.7	32.8	28.1	27.6	32.1	
W	8.1	13.7	1.1	.0	.0		22.8	8.9	19.7	23.9	25.0	21.7	
NW	5.6	7.8	.4	*	.0		13.8	8.1	11.5	16.9	15.3	10.5	
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	
CALM	4.1						4.1	.0	5.2	4.4	4.0	3.0	
TOT OBS	1931	2770	279	5	0	4985		8.5	984	1417	1336	1248	
TOT PCT	38.7	55.6	5.6	.1	.0		100.0		100.0	100.0	100.0	100.0	

PERIOD: (PRIMARY) 1931-1977
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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)				48+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47					
0000	5.2	9.9	59.7	25.0	.3	.0	.0	.0	8.2	100.0	984
0600	4.4	6.2	61.3	26.8	1.2	.0	.0	.0	8.7	100.0	1417
1200	4.0	8.2	60.9	26.3	.7	.0	.0	.0	8.5	100.0	1336
1800	3.0	10.6	57.4	28.5	.4	.1	.0	.0	8.5	100.0	1248
TOT	205	426	2986	1333	34	1	0	8.5			4985
PCT	4.1	8.5	59.9	26.7	.7	*	.0		100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	1.9	2.0	4.1	1.8		5.0
NE	.7	.6	1.7	.7		5.2
E	.1	.5	.9	.9		6.1
SE	.3	.3	1.4	1.1		6.2
S	.7	.9	4.9	4.0		6.3
SW	1.2	2.4	14.2	11.9		6.5
W	1.1	3.0	11.4	8.3		6.3
NW	1.4	2.3	5.6	3.2		5.5
VAR	.0	.0	.0	.0		5.0
CALM	.7	.8	2.1	.7		5.2
TOT OBS	207	329	1190	840	2566	6.0
TOT PCT	8.1	12.8	46.4	32.7	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8)
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

	000	150	300	600	1000	2000	3500	5000	6500	8000+	NH <5/8	TOTAL
	149	299	599	999	1999	3499	4999	6499	7999		ANY HGT	OBS
N	.1	.1	.2	.5	1.1	.6	.1	*	.1	.1	6.9	
NE	*	.1	.4	.6	.3	.1	*	*	.0	.0	2.3	
E	*	*	.2	.2	.6	.3	*	.0	.0	.0	1.1	
SE	.1	*	.4	.7	.4	.1	*	*	.0	.0	1.3	
S	*	.1	.4	1.9	2.8	.9	.3	.1	*	.0	4.1	
SW	.2	.3	1.7	5.6	6.8	2.8	.9	.2	*	.1	11.0	
W	.1	.3	1.2	3.8	5.1	2.3	.4	.1	.2	.1	10.2	
NW	*	.3	1.0	2.3	1.1	.2	*	.0	*	.0	7.4	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.1	.0	*	.6	.4	.1	.0	.0	.0	.0	2.7	
TOT OBS	17	23	105	370	524	235	54	17	8	8	1205	2566
TOT PCT	.7	.9	4.1	14.4	20.4	9.2	2.1	.7	.3	.3	47.0	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE
OF CEILING HEIGHT (NH >4/8) AND VSBY (NH)

CEILING (FEET)	VSBY (NH)							
	= OR >10	= OR >5	= OR >2	= OR >1	= OR >1/2	= OR >1/4	= OR >50YD	= OR >0
= OR >6500	.6	.6	.7	.7	.7	.7	.7	.7
= OR >5000	1.1	1.3	1.3	1.3	1.3	1.3	1.3	1.3
= OR >3500	2.9	3.4	3.4	3.4	3.4	3.4	3.4	3.4
= OR >2000	9.8	12.1	12.4	12.4	12.4	12.4	12.4	12.4
= OR >1000	25.6	31.9	32.9	32.9	33.0	33.1	33.1	33.1
= OR >600	35.2	45.2	46.8	47.0	47.2	47.3	47.3	47.3
= OR >300	37.5	48.5	50.6	51.0	51.2	51.3	51.3	51.3
= OR >150	37.9	49.2	51.4	51.8	52.0	52.2	52.2	52.2
= OR >0	38.1	49.7	52.0	52.4	52.6	52.8	52.8	52.8
TOTAL	1007	1313	1374	1385	1391	1395	1397	1397

TOTAL NUMBER OF OBS: 2644

PCT FREQ NH <5/8: 47.2

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

	0	1	2	3	4	5	6	7	8	OBSCD	TOTAL OBS
	2.7	7.5	12.4	13.0	10.8	10.1	13.0	10.1	20.2	.2	2807

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PERIOD: (PRIMARY) 1931-1977
(OVER-ALL) 1868-1977

TABLE 8

AREA 0036 GULF OF PANAMA
6.8N 79.9W

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	*	.0	*	.0	.1	*	.0	.0	.0	.2	
	NO PCP	.0	.0	*	*	.0	.1	*	.0	.0	.0	.1	
	TOT %	.0	*	*	*	.0	.2	*	.0	.0	.0	.3	
1/2<1	PCP	.0	.0	.0	*	.1	.1	.1	*	.0	.0	.3	
	NO PCP	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	*	
	TOT %	*	.0	.0	*	.1	.1	.1	*	.0	.0	.3	
1<2	PCP	.1	.0	.0	.0	*	.2	.1	.1	.0	.0	.5	
	NO PCP	.0	*	.0	.0	*	.0	*	.0	.0	.0	.1	
	TOT %	.1	*	.0	.0	.1	.2	.1	.1	.0	.0	.6	
2<5	PCP	.1	*	.1	.1	.3	.6	.3	.2	.0	.0	1.7	
	NO PCP	*	.1	*	.1	.2	.4	.3	.1	.0	.0	1.2	
	TOT %	.1	.1	.1	.2	.5	1.1	.6	.3	.0	.0	3.0	
5<10	PCP	.2	*	.2	.2	1.0	3.2	1.9	.5	.0	.1	7.3	
	NO PCP	1.8	.7	.1	.6	1.6	5.2	3.9	1.8	.0	.5	16.1	
	TOT %	2.0	.7	.3	.7	2.5	8.4	5.8	2.3	.0	.6	23.3	
10+	PCP	.2	.1	.1	.1	.5	1.8	1.4	.7	.0	.1	5.2	
	NO PCP	7.7	2.7	1.5	1.8	6.4	19.0	15.3	9.5	.0	3.2	67.3	
	TOT %	7.9	2.8	1.6	1.8	6.9	20.8	17.0	10.3	.0	3.3	72.5	
TOT OBS													3557
TOT PCT		10.1	3.7	2.0	2.6	10.1	30.8	23.6	13.0	.0	4.0	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	*	*	.0	.0	.0	*	
	4-10	.0	.0	*	*	.0	.1	*	.0	.0	.0	.2	
	11-21	.0	*	.0	.0	.0	.1	.0	.0	.0	.0	.1	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	*	*	*	.0	.2	*	.0	.0	.0	.3	
1/2<1	0-3	.0	.0	.0	.0	*	*	.0	.0	.0	.0	*	
	4-10	.0	.0	.0	*	*	.1	*	.0	.0	.0	.1	
	11-21	.0	.0	.0	*	*	.1	*	.0	.0	.0	.1	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	*	.0	.0	.0	.1	.1	.1	*	.0	.0	.3	
1<2	0-3	*	.0	.0	.0	.0	.0	.0	.0	.0	*	*	
	4-10	*	.1	.0	.0	*	.2	*	.1	.0	.0	.5	
	11-21	*	.0	.0	*	.1	.1	*	*	.0	.0	.3	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	*	
	TOT %	.1	.1	.0	*	.1	.3	.1	.1	.0	*	.8	
2<5	0-3	*	*	.0	.1	.1	*	*	*	.0	*	.3	
	4-10	.1	*	.1	.1	.2	.5	.4	.2	.0	.0	1.5	
	11-21	*	*	*	.1	.2	.6	.4	.1	.0	.0	1.4	
	22+	.0	.0	.0	.0	.0	*	.0	.0	.0	.0	*	
	TOT %	.2	.1	.1	.2	.5	1.1	.8	.3	.0	*	3.3	
5<10	0-3	*	.1	*	.1	.2	.3	.2	.1	.0	.6	1.9	
	4-10	1.0	.4	.3	.5	1.5	4.3	3.4	1.5	.0	.0	12.9	
	11-21	.7	.1	*	.5	.7	3.4	1.8	.5	.0	.0	7.4	
	22+	*	.0	.0	.0	.0	.1	*	*	.0	.0	.1	
	TOT %	1.8	.6	.3	.7	2.5	8.1	5.5	2.2	.0	.6	22.3	
10+	0-3	.8	.5	.4	.5	.9	1.3	1.4	1.1	.0	3.4	10.5	
	4-10	4.6	1.8	.9	1.0	4.2	12.6	11.1	7.5	.0	.0	43.8	
	11-21	2.7	.5	.2	.3	1.7	6.4	4.1	2.3	.0	.0	18.1	
	22+	.1	*	*	*	*	.1	.2	.1	.0	.0	.5	
	TOT %	8.2	2.8	1.5	1.8	7.0	20.4	16.8	11.0	.0	3.4	72.9	
TOT OBS													4020
TOT PCT		10.4	3.6	1.9	2.8	10.0	30.2	23.3	13.6	.0	4.1	100.0	

PERIOD: (PRIMARY) 1931-1977
(OVER-ALL) 1868-1977

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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NM >4/8) AND
OCCURRENCE OF NM <5/8 BY HOUR

HOURL (GMT)	000 149	150 209	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00003	.2	.9	3.6	13.0	18.7	9.9	2.8	.3	.7	.3	50.6	49.4	577
06009	.9	.5	2.5	13.5	20.7	10.1	1.9	.5	.0	.5	50.9	49.1	646
12015	.9	1.5	4.7	14.7	21.3	6.8	1.6	.4	.4	.1	52.2	47.8	812
18021	.4	.4	4.9	14.7	19.8	9.1	2.1	1.3	.3	.3	53.4	46.6	672
TOT	17	23	108	380	548	238	55	17	9	9	1404	1303	2707
PCT	.6	.8	4.0	14.0	20.2	8.8	2.0	.6	.3	.3	51.9	48.1	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOURL (GMT)	<1/2	1/2<1	1<2	2<3	3<10	10+	TOTAL OBS
00003	.2	.0	.7	2.9	20.2	75.9	831
06009	.2	.3	.6	3.4	26.2	69.3	1159
12015	.6	.5	1.2	3.3	21.9	72.4	1132
18021	.2	.5	.8	3.4	21.9	73.2	1039
TOT	13	15	35	135	948	3015	4161
PCT	.3	.4	.8	3.2	22.8	72.5	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR
CEILING HGT (FEET, NM >4/8) BY HOUR

HOURL (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND 5+	NH <5/8 AND 5+	TOTAL OBS
00003	.2	5.0	19.6	32.4	48.0	562
06009	1.0	4.4	19.6	33.8	46.6	618
12015	.9	7.1	23.0	29.9	47.1	803
18021	.5	6.4	22.4	32.1	45.5	661
TOT	17	154	564	843	1237	2644
PCT	.6	5.8	21.3	31.9	46.8	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
90/94	.0	.0	.0	*	.1	.0	.1	.0	7	.2
83/89	.0	.0	.0	.2	.6	1.6	.5	.1	100	3.1
80/84	.0	.0	.0	.0	.9	10.4	22.8	4.6	1260	38.7
75/79	.0	.0	*	.1	.2	2.3	28.1	25.7	1836	56.3
70/74	.0	.0	.0	.0	.0	*	.2	1.5	55	1.7
65/69	.0	.0	.0	.0	.0	.0	.0	*	1	*
TOTAL	0	0	1	8	57	469	1685	1039	3259	100.0
PCT	.0	.0	*	.2	1.7	14.4	51.7	31.9		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
90/94	.0	*	.1	.0	.0	*	.1	*	.0	.0
83/89	.5	.3	.5	.1	.2	.7	.6	.5	.0	.2
80/84	6.3	2.0	1.2	1.0	3.0	8.6	8.0	6.4	.0	2.2
75/79	3.1	1.4	.9	1.4	6.8	21.5	14.5	5.3	.0	1.5
70/74	.1	*	.1	.2	.3	.6	.3	.2	.0	*
65/69	.0	.0	.0	*	*	.0	.0	.0	.0	.0
TOTAL	10.0	3.8	2.2	2.7	10.3	31.4	23.4	12.4	.0	3.9

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOURL (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	91	85	83	79	76	74	66	79.4	1010
06009	88	83	82	79	75	73	65	78.6	1477
12015	88	84	82	79	75	73	65	78.6	1359
18021	95	89	86	81	76	73	66	80.7	1269
TOT	95	87	84	79	75	73	65	79.3	5115

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-39	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	.1	.4	13.7	54.9	30.8	86	707
06009	.0	.4	.6	8.7	53.1	37.2	87	889
12015	.0	.0	.7	8.6	54.4	36.3	87	980
18021	.0	.5	5.4	28.7	43.2	22.2	83	819
TOT	0	9	59	493	1747	1087	86	3395

PERIOD: (PRIMARY) 1931-1977
(OVER-ALL) 1868-1977

NOVEMBER

AREA 0036 GULF OF PANAMA
6.8N 79.9W

TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	65 68	69 72	73 76	77 80	81 84	85 88	89 92	>92	TOT	W FOG	WD FOG
14/16	.0	.0	.0	.0	*	.0	.0	*	2	.0	.1
11/13	.0	.0	.0	*	.1	.0	.0	.0	3	.0	.1
9/10	.0	.0	.0	.1	*	.1	.0	.0	6	.0	.2
7/8	.0	.0	*	.1	.1	.2	.1	.0	16	.0	.5
6	.0	.0	.0	*	.1	.3	.0	.0	14	.0	.4
5	.0	*	*	.1	.1	.5	.1	.0	26	.0	.8
4	.0	.0	*	.2	.7	.5	.0	.0	46	.0	1.4
3	.0	.0	*	.3	1.0	.3	.0	.0	54	*	1.6
2	*	.0	*	.8	2.8	.4	.0	.0	131	.0	4.0
1	.0	.0	*	1.9	3.0	.4	.0	.0	176	.1	5.3
0	.0	.0	.2	6.4	7.0	.1	.0	.0	443	.2	13.4
-1	.0	.0	.2	9.4	4.6	.0	.0	.0	466	.1	14.2
-2	.0	.0	.6	15.3	3.4	.0	.0	.0	627	.2	19.1
-3	.0	.0	2.0	11.0	1.3	*	.0	.0	467	.2	14.2
-4	.0	*	2.0	8.1	.6	*	.0	.0	350	.1	10.7
-5	.0	.0	1.7	4.3	.2	.0	.0	.0	204	.0	6.3
-6	.0	*	1.4	2.2	*	.0	.0	.0	120	.0	3.7
-7/-8	.0	.1	1.4	1.2	.1	.0	.0	.0	91	.0	2.8
-9/-10	.0	*	.2	.1	.0	.0	.0	.0	11	.0	.3
-11/-13	.0	.1	.1	.0	.0	.0	.0	.0	4	.0	.1
-14/-16	*	.0	.0	.0	.0	.0	.0	.0	1	.0	*
TOTAL	2		326		821		9		3260	28	3232
PCT	.1	.3	10.0	61.4	25.2	2.8	.3	*	100.0	.9	99.1

PERIOD: (OVER-ALL) 1963-1977

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.3	.8	.1	.0	.0	.0	1.1	.1	.5	.0	.0	.0	.0	.7
1-2	.3	3.2	1.2	.0	.0	.0	4.7	.0	1.0	.2	.0	.0	.0	1.2
3-4	.0	1.2	1.1	.1	.0	.0	2.4	.0	.4	.2	.0	.0	.0	.5
5-6	.0	.2	.3	.0	.0	.0	.5	.0	.1	.1	.0	.0	.0	.1
7	.0	.0	.1	.0	.0	.0	.1	.0	.0	.1	.0	.0	.0	.1
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.6	5.4	2.9	.1	.0	.0	8.9	.1	2.0	.5	.0	.0	.0	2.6

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.1	.3	.0	.0	.0	.0	.3	.4	.4	.0	.0	.0	.0	.8
1-2	.1	.7	.1	.0	.0	.0	1.0	.0	1.0	.1	.0	.0	.0	1.0
3-4	.0	.3	.2	.0	.0	.0	.5	.0	.3	.3	.1	.0	.0	.6
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.1	*	.0	.0	.0	.1
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.1
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-17	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.2	1.3	.4	.0	.0	.0	1.8	.4	1.7	.4	.1	.0	.0	2.6

PERIOD: (OVER-ALL) 1963-1977

NOVEMBER
TABLE 18 (CONT)AREA 0036 GULF OF PANAMA
6.8N 79.9W

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.5	.7	.1	.0	.0	.0	1.3	.4	1.9	.0	.0	.0	.0	2.3
1-2	.4	3.9	.9	.0	.0	.0	5.2	.2	9.0	2.0	.0	.0	.0	11.2
3-4	.0	1.1	2.0	.1	.0	.0	3.2	.4	7.4	5.7	.0	.0	.0	13.5
5-6	.0	.3	1.0	.1	.0	.0	1.3	.*	.6	2.7	.0	.0	.0	3.3
7	.0	.1	.2	.0	.0	.0	.4	.0	.1	.9	.0	.0	.0	1.1
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.1
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.1
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.9	6.1	4.2	.1	.0	.0	11.4	1.0	19.0	11.6	.0	.0	.0	31.5

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.7	2.0	.1	.0	.0	.0	2.7	.4	1.4	.*	.0	.0	.0	1.7	
1-2	.5	8.5	2.0	.0	.0	.0	11.0	.3	5.2	.9	.0	.0	.0	6.4	
3-4	.0	5.0	3.3	.0	.0	.0	8.4	.1	1.3	1.4	.1	.0	.0	2.9	
5-6	.1	.7	1.5	.1	.0	.0	2.4	.0	.*	.4	.0	.0	.0	.4	
7	.0	.0	.3	.0	.0	.0	.3	.0	.0	.1	.0	.0	.0	.1	
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	1.2	16.3	7.2	.1	.0	.0	24.8	.7	7.9	2.8	.1	.0	.0	11.5	95.2

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	8.2	8.2	.2	.0	.0	.0	16.6	
1-2	3.2	32.1	7.1	.0	.0	.0	42.4	
3-4	.5	16.3	13.8	.3	.0	.0	30.9	
5-6	.1	1.9	5.7	.1	.0	.0	7.9	
7	.0	.3	1.7	.0	.0	.0	2.0	
8-9	.0	.0	.2	.0	.0	.0	.2	
10-11	.0	.0	.1	.0	.0	.0	.1	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	11.9	58.8	28.9	.4	.0	.0	100.0	1393

PERIOD: (OVER-ALL) 1949-1977

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	5.1	19.0	21.8	7.3	1.8	.2	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1247	3
6-7	.3	2.4	8.1	7.7	2.4	.3	.3	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	484	4
8-9	.1	.7	2.3	2.2	.7	.1	.1	.*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	141	4
10-11	.0	1.0	.8	.8	.1	.*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	61	3
12-13	.0	.0	.9	.*	.*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	23	3
>13	.0	.0	.0	.4	.*	.0	.0	.0	.*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	12	7
INDET	6.5	2.0	2.3	1.4	.2	.1	.0	.0	.0	.*	.0	.0	.0	.0	.0	.0	.0	.0	.0	283	2
TOTAL	269	565	812	450	116	18	14	3	2	1	1	0	0	0	0	0	0	0	0	2251	3
PCT	12.0	25.1	36.1	20.0	5.2	.8	.6	.1	.1	.*	.*	.0	.0	.0	.0	.0	.0	.0	.0	100.0	

PERIOD: (PRIMARY) 1931-1977
(OVER-ALL) 1868-1977

DECEMBER

AREA 0036 GULF OF PANAMA
6.8N 79.9W

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
N	1.7	1.5	1.1	.0	.0	.0	.0	4.1	2.1	3.0	1.2	.0	.5	.0	89.3
NE	3.3	2.1	.2	.0	.0	.0	.0	5.5	2.7	1.5	4.8	.0	.3	.3	85.0
E	2.2	2.2	2.9	.0	.0	.0	.0	7.4	8.6	2.9	2.0	.0	.0	.0	80.0
SE	6.1	3.1	.4	.0	.0	.0	.0	9.6	5.0	3.4	3.1	.0	.0	.0	78.9
S	8.6	2.5	3.4	.0	.0	.0	.0	14.6	6.6	1.5	.5	.0	.0	.0	76.9
SW	9.0	5.1	3.2	.0	.0	.0	.0	17.1	9.4	3.6	.5	.0	.2	.4	69.4
W	7.1	4.4	2.2	.0	.0	.0	.0	13.4	5.5	3.4	.8	.0	.7	.0	76.4
NW	2.7	2.3	1.3	.0	.0	.0	.0	6.3	2.3	3.6	1.4	.0	.3	.0	86.0
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.7	2.1	2.8	.0	.0	.0	.0	5.7	2.8	2.1	.0	.0	1.4	.7	87.2
TOT PCT	4.2	2.7	1.7	.0	.0	.0	.0	8.5	4.2	3.0	1.5	.0	.4	.1	82.6
TOT OBS:	3485														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
00003	3.0	2.3	1.7	.0	.0	.0	.0	7.0	3.5	3.2	1.1	.0	1.0	.3	84.1
06009	3.2	2.7	1.5	.0	.0	.0	.0	7.2	3.9	7.8	1.8	.0	.2	.0	79.9
12015	5.8	3.1	2.0	.0	.0	.0	.0	10.6	4.9	1.2	.7	.0	.6	.2	82.0
18021	5.1	2.7	1.8	.0	.0	.0	.0	9.3	4.5	.1	3.4	.0	.2	.0	82.3
TOT PCT	4.4	2.7	1.8	.0	.0	.0	.0	8.7	4.2	3.1	1.7	.0	.5	.1	81.9
TOT OBS:	3649														

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	48+					00	03	06	09	12	15	18	21
N	2.1	16.0	12.4	.8	*	.0		31.3	10.5		22.9	38.9	31.0	29.9	37.6	35.9	32.0	30.6
NE	1.3	6.4	3.5	.2	.0	.0		11.5	9.1		13.8	3.7	9.9	8.9	9.0	6.5	14.1	17.3
E	.6	2.2	.4	*	.0	.0		3.2	6.8		3.9	3.7	2.6	2.1	3.2	4.9	3.5	3.0
SE	.5	1.3	.2	.0	.0	.0		2.0	6.3		2.4	3.7	1.6	1.2	2.1	1.6	1.7	3.2
S	.8	3.7	1.0	.0	.0	.0		5.4	7.3		6.8	7.4	3.8	3.9	4.7	3.4	7.3	5.9
SW	1.2	9.1	3.1	*	.0	.0		13.4	8.5		17.0	7.4	12.5	13.2	10.7	10.2	16.2	10.1
W	1.2	8.9	2.3	.1	.0	.0		12.5	7.9		13.4	11.1	14.1	13.6	13.0	9.4	9.5	11.5
NW	1.3	10.9	4.5	*	.0	.0		16.6	8.8		15.2	20.4	19.1	24.9	16.3	26.0	12.1	15.0
VAR	.0	.0	.0	.0	.0	.0		.0	.0		.0	.0	.0	.0	.0	.0	.0	.0
CALM	3.9							3.9	.0		4.7	3.7	5.4	2.3	3.3	2.1	3.4	3.3
TOT OBS	635	2871	1346	59	1	0	4912		8.7		921	27	1079	341	1216	96	933	299
TOT PCT	12.9	58.4	27.4	1.2	*	.0		100.0			100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)					TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)				
	0-6	7-16	17-27	28-40	41+				00	06	12	18	21
N	7.5	19.5	4.2	.1	.0		31.3	10.5	23.3	30.7	37.5	31.7	
NE	4.2	6.3	1.0	*	.0		11.5	9.1	13.5	9.7	8.8	14.9	
E	1.9	1.3	*	*	.0		3.2	6.8	3.9	2.5	3.4	3.4	
SE	1.2	.7	*	.0	.0		2.0	6.3	2.4	1.5	2.1	2.1	
S	2.7	2.7	.1	.0	.0		5.4	7.3	6.9	3.9	4.6	7.0	
SW	4.9	8.1	.5	*	.0		13.4	8.5	16.7	12.7	10.6	14.8	
W	5.6	6.5	.4	*	.0		12.5	7.9	13.3	14.0	12.7	10.0	
NW	5.6	10.3	.8	*	.0		16.6	8.8	15.3	20.5	17.1	12.8	
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	
CALM	3.9						3.9	.0	4.6	4.6	3.2	3.4	
TOT OBS	1839	2720	344	9	0	4912		8.7	948	1420	1312	1232	
TOT PCT	37.4	55.4	7.0	.2	.0		100.0		100.0	100.0	100.0	100.0	

PERIOD: (PRIMARY) 1931-1977
(OVER-ALL) 1888-1977

DECEMBER

AREA 0036 GULF OF PANAMA
6.8N 79.9W

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)				48+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47					
00003	4.6	8.0	64.1	22.2	1.1	.0	.0	.0	8.3	100.0	948
06009	4.6	8.1	57.5	28.5	1.2	.1	.0	.0	8.7	100.0	1420
12015	3.2	8.9	56.3	30.2	1.4	.0	.0	.0	9.1	100.0	1312
18021	3.4	10.8	57.5	27.2	1.1	.0	.0	.0	8.6	100.0	1282
TOT	194	44.1	287.1	1346	59	1	0	0	8.7		4912
PCT	4.9	9.0	58.4	27.4	1.2	*	.0	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	10.7	5.8	10.1	4.7	4.1	
NE	3.9	2.3	3.0	2.0	4.0	
E	.9	.7	1.4	.7	4.7	
SE	.3	.2	.9	.4	5.4	
S	.6	.6	2.0	2.2	6.1	
SW	1.2	2.0	5.8	5.9	6.2	
W	2.0	1.7	4.7	3.8	5.5	
NW	3.8	2.9	5.3	3.1	4.7	
VAR	.0	.0	.0	.0	.0	
CALM	.9	.8	2.0	.7	4.9	
TOT OBS	616	430	889	594	2529	4.8
TOT PCT	24.4	17.0	35.2	23.5	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8)
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

	000	150	300	600	1000	2000	3500	5000	6500	8000+	NH <5/8 ANY HGT	TOTAL OBS
	149	299	599	999	1999	3499	4999	6499	7999			
N	.1	.1	.6	1.8	3.3	1.1	.6	.1	*	.3	23.2	
NE	.0	*	.1	.5	1.2	.6	.1	.1	.1	.0	8.4	
E	.0	.0	.2	.4	.4	.2	.1	.0	*	.0	2.4	
SE	.0	.0	*	.2	.5	.1	*	.0	.0	.0	1.0	
S	.1	.0	.1	1.1	1.1	.5	.2	.0	.0	.0	2.3	
SW	.2	*	.8	2.5	3.5	1.6	.3	.2	.0	*	5.7	
W	*	*	.6	1.3	2.0	.8	.3	.1	.0	.0	6.9	
NW	.0	.0	.2	1.1	2.5	.6	.1	*	.1	.1	10.2	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	*	.0	.1	.4	.9	.1	.1	.0	.1	.0	2.8	
TOT OBS	12	7	71	232	391	139	49	16	7	13	1592	2529
TOT PCT	.5	.3	2.8	9.2	15.5	5.5	1.9	.6	.3	.5	62.9	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE
OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)				OR				OR >0
	>10	>5	>2	>1	>1/2	>1/4	>50YD		
>6500	.6	.8	.8	.8	.8	.8	.8	.8	
>5000	1.2	1.3	1.3	1.4	1.4	1.4	1.4	1.4	
>3500	2.7	3.1	3.1	3.2	3.2	3.2	3.2	3.2	
>2000	7.5	8.7	8.8	8.8	8.8	8.8	8.8	8.8	
>1000	19.1	23.1	23.9	24.1	24.1	24.1	24.1	24.1	
>600	25.1	31.6	32.9	33.3	33.4	33.4	33.4	33.4	
>300	26.6	34.0	35.6	36.0	36.1	36.1	36.1	36.1	
>150	26.7	34.2	35.9	36.3	36.4	36.4	36.4	36.4	
>0	26.8	34.4	36.2	36.7	36.8	36.9	36.9	36.9	
TOTAL	708	908	956	968	972	973	973	974	

TOTAL NUMBER OF OBS: 2640

PCT FREQ NH <5/8: 63.1

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	OBSCD	TOTAL OBS
11.2	15.6	14.5	12.4	9.1	7.5	8.1	7.1	14.1	.3	2764

PERIOD: (PRIMARY) 1931-1977
(OVER-ALL) 1868-1977

DECEMBER

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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS	
<1/2	PCP	.0	.0	.0	.0	*	.1	.0	*	.0	.0	.1		
	NO PCP	.1	.0	.0	.0	.0	*	*	.0	.0	.0	.1		
	TOT %	.1	.0	.0	.0	*	.1	*	*	.0	.0	.2		
1/2<1	PCP	.1	.0	.0	.0	*	*	*	.0	.0	.0	.1		
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
	TOT %	.1	.0	.0	.0	*	*	*	.0	.0	.0	.1		
1<2	PCP	.1	.1	.0	.0	.1	.1	.1	.0	.0	*	.5		
	NO PCP	*	*	.0	.0	.0	.0	*	*	.0	.0	.1		
	TOT %	.1	.1	.0	.0	.1	.1	.1	*	.0	*	.6		
2<5	PCP	.2	*	.0	*	.1	.5	.3	.1	.0	*	1.2		
	NO PCP	.2	.1	.0	*	.1	.2	.1	.2	.0	.0	.9		
	TOT %	.4	.1	.0	.1	.2	.7	.5	.3	.0	*	2.2		
5<10	PCP	.6	.2	.1	.1	.3	1.1	.8	.6	.0	.1	4.0		
	NO PCP	4.3	1.7	.5	.3	.7	2.3	2.1	2.5	.0	.4	14.6		
	TOT %	4.9	1.9	.6	.3	1.0	3.4	2.9	2.9	.0	.5	18.6		
10+	PCP	.4	.3	.2	.1	.3	.6	.5	.3	.0	.1	2.6		
	NO PCP	25.1	8.9	2.7	1.4	3.8	9.2	8.6	12.8	.0	3.3	75.8		
	TOT %	25.5	9.2	2.9	1.5	4.1	9.7	9.1	13.1	.0	3.4	78.3		
TOT OBS														3475
TOT PCT														
31.0 11.3 3.5 1.9 5.4 14.0 12.6 16.3 .0 4.0 100.0														

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.1	.0	.0	.0	*	*	*	.1	.0	.0	.2	
	11-21	.0	.0	.0	.0	.0	*	*	.0	.0	.0	.1	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.1	.0	.0	.0	*	.1	*	.1	.0	.0	.3	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	*	*	.0	.0	*	*	*	*	.0	.0	.1	
	11-21	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.1	*	.0	.0	*	*	*	*	.0	.0	.2	
1<2	0-3	.0	*	.0	.0	.0	.0	.0	*	.0	*	.1	
	4-10	.1	.1	*	.0	*	.1	.1	.0	.0	*	.4	
	11-21	.0	.1	.0	.0	*	*	*	*	.0	.0	.2	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.1	.1	*	.0	.1	.1	.1	*	.0	*	.6	
2<5	0-3	.0	.0	.0	.0	.0	*	*	.0	.0	*	.1	
	4-10	.3	.1	*	.1	.1	.5	.3	.2	.0		1.5	
	11-21	.1	.1	.0	.0	.1	.2	.1	.2	.0		.7	
	22+	.0	.0	.0	.0	.0	.0	*	.0	.0	*	.0	
	TOT %	.4	.2	*	.1	.2	.7	.5	.3	.0	*	2.3	
5<10	0-3	.5	.4	.1	.1	.1	.4	.2	.3	.0	.5	2.6	
	4-10	2.5	1.1	.4	.2	.8	1.9	1.9	1.8	.0		10.5	
	11-21	1.7	.3	.1	.1	.2	1.2	.7	.9	.0		5.3	
	22+	.1	*	.0	.0	.0	*	*	*	.0	.2	.2	
	TOT %	4.8	1.8	.6	.4	1.1	3.4	2.9	3.0	.0	.5	18.5	
10+	0-3	1.3	.8	.4	.4	.7	.9	1.0	1.0	.0	3.4	9.8	
	4-10	12.8	4.9	1.9	1.0	2.7	6.5	6.6	8.6	.0		45.0	
	11-21	10.9	3.2	.4	.1	.7	1.9	1.5	3.7	.0		22.5	
	22+	.3	.2	*	*	.0	.0	*	*	.0		.8	
	TOT %	25.3	9.1	2.7	1.6	4.0	9.3	9.1	13.4	.0	3.4	78.1	
TOT OBS													3918
TOT PCT													
31.0 11.2 3.4 2.0 5.5 13.7 12.6 16.8 .0 3.9 100.0													

DECEMBER

PERIOD: (PRIMARY) 1931-1977
(OVER-ALL) 1868-1977

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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NM >4/8) AND
OCCURRENCE OF NM <5/8 BY HOUR

HOURL (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NM <5/8 ANY HGT	TOTAL OBS
00003	.3	.2	3.1	9.5	15.2	7.1	1.7	.5	.2	.7	38.5	61.5	579
06009	.3	.0	1.3	8.5	14.6	3.8	1.3	.6	.4	.1	31.0	69.0	680
12015	.4	.5	3.1	8.9	15.5	4.8	1.7	.4	.2	.5	35.9	64.1	838
18021	.8	.5	3.2	9.2	14.3	6.8	2.6	1.0	.2	.6	39.2	60.8	617
TOT PCT	12 .4	8 .3	73 2.7	245 9.0	405 14.9	149 5.5	49 1.8	16 .6	7 .3	13 .5	977 36.0	1737 64.0	2714 100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOURL (GMT)	<1/2	1/2<1	1<2	2<3	3<10	10+	TOTAL OBS
00003	.2	.4	.6	2.2	17.3	79.2	802
06009	.2	.1	.5	1.4	20.3	77.6	1155
12015	.4	.1	.8	2.9	16.2	79.7	1133
18021	.4	.2	.6	2.6	21.3	74.9	995
TOT PCT	12 .3	7 .2	26 .6	93 2.3	768 18.8	3179 77.8	4085 100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR
CEILING HGT (FEET, NM >4/8), BY HOUR

HOURL (GMT)	<150 <500	<600 <1	<1000 <5	1000+ AND 5+	NM <5/8 AND 5+	TOTAL OBS
00003	.4	4.1	14.8	25.3	59.9	561
06009	.3	1.8	11.1	20.8	68.1	664
12015	.5	4.0	15.0	21.9	63.1	816
18021	.8	4.5	15.2	25.2	59.6	599
TOT PCT	13 .5	95 3.6	370 14.0	610 23.1	1660 62.9	2640 100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
95/99	.0	.0	.0	.1	.0	.0	.0	.0	2	.1
90/94	.0	.0	.0	.1	.1	.1	.1	.0	14	.4
85/89	.0	.0	.0	.2	1.1	1.9	.7	.2	132	4.1
80/84	.0	.0	.0	.2	2.2	19.3	27.3	5.9	1769	54.9
75/79	.0	.0	.0	.0	.2	3.8	19.9	15.4	1265	39.4
70/74	.0	.0	.0	.0	.0	.1	.2	.8	37	1.2
65/69	.0	.0	.0	.0	.0	.0	.0	.0	1	.0
TOTAL PCT	0 .0	0 .0	1 .0	19 .6	119 3.7	811 25.2	1548 48.1	718 22.3	3214	100.0

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
95/99	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
90/94	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0
85/89	1.5	.9	.2	.1	.2	.2	.2	.5	.0	.2
80/84	20.0	7.7	1.5	.8	1.9	5.1	6.1	9.3	.0	2.5
75/79	8.9	2.6	1.4	.7	3.1	9.0	6.3	5.8	.0	1.5
70/74	.2	.1	.1	.0	.1	.3	.2	.1	.0	.0
65/69	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOTAL	31.0	11.4	3.2	1.6	5.3	14.7	12.9	15.8	.0	4.1

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOURL (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	91	85	84	80	76	73	68	80.2	994
06009	86	83	82	79	76	75	68	79.2	1486
12015	99	84	82	79	76	73	66	79.3	1346
18021	95	90	87	82	76	74	72	81.5	1253
TOT	99	87	84	80	76	74	66	80.0	5079

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL
00003	.0	.1	1.9	22.7	52.2	23.0	84	695
06009	.0	.2	1.9	17.1	53.7	27.1	85	924
12015	.0	.7	2.3	22.1	50.4	24.5	85	974
18021	.0	1.3	8.9	39.8	34.9	15.2	80	789
TOT	0	20	123	845	1625	769	84	3982

PERIOD: (PRIMARY) 1931-1977
(OVER-ALL) 1868-1977

DECEMBER

AREA 0036 GULF OF PANAMA
6.8N 79.9W

TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	65 68	69 72	73 76	77 80	81 84	85 88	89 92	>92	TOT	W FOG	NO FOG
17/19	.0	.0	.0	.0	.0	.0	.0	*	1	.0	*
14/16	.0	.0	.0	*	.0	.0	.0	*	2	.0	.1
11/13	.0	.0	.0	.0	*	*	*	.1	5	.0	.2
9/10	.0	.0	.0	.1	*	.1	.1	*	8	.0	.2
7/8	.0	.0	.0	*	.3	.3	.3	*	30	.0	.9
6	.0	.0	.1	.0	.2	.5	.1	.0	29	.0	.9
5	.0	.0	.0	.0	.2	.7	*	.0	32	.0	1.0
4	.0	.0	.0	.2	1.2	.8	*	.0	75	*	2.3
3	.0	.0	*	.2	1.5	.6	.0	.0	78	*	2.3
2	.0	.0	*	.9	4.4	.5	.0	.0	193	.2	5.7
1	.0	.0	.0	2.0	6.4	.3	.0	.0	286	.3	8.4
0	.0	.0	.1	7.5	9.8	.2	.0	.0	576	.3	17.2
-1	.0	*	.1	12.4	5.0	.0	.0	.0	575	.1	17.4
-2	.0	.0	.4	13.3	3.4	.0	.0	.0	560	.1	17.0
-3	.0	.0	.7	7.7	1.5	.0	.0	.0	326	*	9.9
-4	.0	.1	1.7	4.7	.8	.0	.0	.0	238	.0	7.2
-5	.0	.0	1.0	2.8	.3	.0	.0	.0	134	.0	4.1
-6	.0	.0	1.2	.8	.0	.0	.0	.0	66	*	2.0
-7/-8	.1	.0	.9	.6	.1	.0	.0	.0	54	.0	1.6
-9/-10	.0	.1	.1	.2	.0	.0	.0	.0	13	.0	.4
-11/-13	.0	.1	*	.1	.0	.0	.0	.0	6	.0	.2
TOTAL	2	10	209	1757	1156	131	16	6	3287	35	3252
PCT	.1	.3	6.4	53.5	35.2	4.0	.5	.2	100.0	1.1	98.9

PERIOD: (OVER-ALL) 1963-1977

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	N						PCT	NE						PCT
	1-3	4-10	11-21	22-33	34-47	48+		1-3	4-10	11-21	22-33	34-47	48+	
<1	.3	1.8	.3	.0	.0	.0	2.6	.2	1.0	.1	.0	.0	.0	1.3
1-2	.6	8.5	4.2	.0	.0	.0	13.3	.1	3.8	1.7	.0	.0	.0	5.6
3-4	.0	4.4	7.2	.1	.0	.0	11.6	.1	1.2	2.0	.0	.0	.0	3.3
5-6	.0	1.1	3.9	.0	.0	.0	5.0	.0	1.2	1.4	.0	.0	.0	1.7
7	.0	.1	1.1	.0	.0	.0	1.1	.0	.0	.3	.0	.0	.0	.3
8-9	.0	.0	.0	.1	.0	.0	.1	.0	.0	.1	.1	.0	.0	.2
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.1
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.0	15.9	16.6	.3	.0	.0	33.8	.4	6.2	5.5	.3	.0	.0	12.5

HGT	E						PCT	SE						PCT
	1-3	4-10	11-21	22-33	34-47	48+		1-3	4-10	11-21	22-33	34-47	48+	
<1	.1	.8	.0	.0	.0	.0	.9	.1	.4	.0	.0	.0	.0	.5
1-2	.1	1.5	.3	.0	.0	.0	1.9	.1	.5	.1	.0	.0	.0	.8
3-4	.0	.7	.2	.0	.0	.0	.9	.1	.0	.2	.0	.0	.0	.2
5-6	.0	.0	.1	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.1	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.2	2.9	.6	.0	.0	.0	3.7	.3	.9	.3	.0	.0	.0	1.5

PERIOD: (OVER-ALL) 1963-1977

DECEMBER

AREA 0036 GULF OF PANAMA
6.8N 79.9W

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.5	.0	.0	.0	.0	.0	1.1	.5	.0	.0	.0	.0	.0	1.3
1-2	.1	1.1	.4	.0	.0	.0	1.6	.4	4.6	.9	.0	.0	.0	5.9
3-4	.0	1.0	.7	.0	.0	.0	1.7	.0	1.9	1.9	.0	.0	.0	3.9
5-6	.0	.1	.1	.0	.0	.0	.2	.1	.3	1.0	.1	.0	.0	1.5
7	.1	.0	.0	.0	.0	.0	.1	.0	.0	.1	.0	.0	.0	.1
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.6	2.9	1.2	.0	.0	.0	4.7	.8	7.8	4.0	.1	.0	.0	12.6

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.3	1.3	.1	.0	.0	.0	1.7	.6	1.2	.0	.0	.0	.0	1.9	
1-2	.1	4.8	1.0	.0	.0	.0	6.0	.5	5.6	1.3	.0	.0	.0	7.4	
3-4	.0	2.0	1.0	.0	.0	.0	3.0	.0	2.0	2.2	.0	.0	.0	4.2	
5-6	.1	.5	.3	.0	.0	.0	.9	.0	.8	.6	.0	.0	.0	1.4	
7	.0	.0	.1	.1	.0	.0	.2	.0	.0	.2	.0	.0	.0	.2	
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.5	8.6	2.5	.1	.0	.0	11.7	1.1	9.7	4.3	.0	.0	.0	15.1	95.6

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	8.4	8.1	.5	.0	.0	.0	17.0	
1-2	3.1	30.0	9.5	.0	.0	.0	42.6	
3-4	.2	12.6	14.8	.1	.0	.0	27.8	
5-6	.1	3.0	7.0	.2	.0	.0	10.3	
7	.1	.1	1.7	.1	.0	.0	1.9	
8-9	.0	.0	.1	.2	.0	.0	.3	
10-11	.0	.1	.0	.1	.0	.0	.1	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	12.0	53.7	33.6	.7	.0	.0	100.0	1409

PERIOD: (OVER-ALL) 1949-1977

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	4.6	22.2	22.2	7.8	1.5	.4	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1329	3
6-7	.1	3.0	7.4	6.8	1.9	.4	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	450	4
8-9	.0	.7	1.9	1.8	.6	.4	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	127	5
10-11	.0	.8	.6	.6	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	31	4
12-13	.0	.0	1.1	.2	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	9	6
13-14	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	266	2
INDET	5.4	2.6	2.3	1.1	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2266	3
TOTAL	229	663	801	420	109	28	14	2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	
PCT	10.1	29.3	35.3	18.5	4.8	1.2	.6	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		

PERIOD: (PRIMARY) 1930-1978
(OVER-ALL) 1861-1978

ANNUAL

AREA 0036 GULF OF PANAMA
6.8N 79.9W

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THOR LTNG	FOG PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
N	4.0	1.8	.9	.0	.0	.0	*	6.5	2.3	5.1	1.3	.0	2.1	*	83.2
NE	4.7	2.5	1.2	.0	.0	.0	.0	8.3	3.6	3.6	2.2	.0	2.0	.1	80.8
E	6.6	3.1	2.4	.0	.0	.0	*	11.9	4.3	4.1	1.1	.0	2.2	.1	77.0
SE	6.6	2.9	1.3	.0	.0	.0	*	10.7	4.7	2.3	1.5	*	1.5	*	78.5
S	6.3	3.9	2.3	.0	.0	.0	*	12.3	5.3	3.7	.9	*	1.4	.0	76.6
SW	7.4	4.5	2.4	.0	.0	.0	*	14.1	5.4	4.1	1.0	*	1.3	.1	74.2
W	6.2	3.8	1.8	.0	.0	.0	*	11.7	5.1	3.2	1.1	.0	1.7	.1	75.8
NW	4.7	2.7	1.4	.0	.0	.0	.1	8.8	3.0	5.6	1.3	.0	1.5	.1	80.2
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	2.9	2.2	1.1	.0	.0	.0	.0	6.1	2.7	4.5	.6	.0	2.8	.1	83.7
TOT PCT	5.4	3.2	1.7	.0	.0	.0	*	10.1	4.1	4.1	1.4	*	1.8	*	79.0
TOT OBS: 46494															

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THOR LTNG	FOG PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
00003	3.1	2.2	1.3	.0	.0	.0	*	6.5	2.9	3.8	1.2	*	2.3	.1	83.6
06009	4.3	3.3	1.4	.0	.0	.0	*	8.9	3.5	11.0	2.0	.0	1.0	*	74.7
12015	7.1	3.8	1.9	.0	.0	.0	*	12.7	5.3	2.3	1.2	*	1.9	.1	77.1
18021	6.7	3.8	2.0	.0	.0	.0	*	12.3	4.2	.5	1.8	.0	2.2	*	79.4
TOT PCT	5.4	3.3	1.7	.0	.0	.0	*	10.3	4.0	4.3	1.5	*	1.8	*	78.5
TOT OBS: 48807															

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							48+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)						
	0-3	4-10	11-21	22-33	34-47	00	03					06	09	12	15	18	21	
N	1.7	10.8	8.3	.6	*	.0	21.4	9.2	17.5	21.6	21.7	24.1	25.3	24.3	20.0	18.7		
NE	1.1	5.7	3.3	.2	*	.0	10.3	8.3	10.7	8.1	8.6	8.5	9.7	8.0	12.4	13.1		
E	.7	2.4	.6	*	*	.0	3.8	6.9	3.9	4.1	3.1	2.1	3.6	4.3	5.1	3.8		
SE	.8	2.2	.4	*	*	.0	3.4	6.4	3.4	3.4	2.6	2.1	3.0	3.0	4.7	4.4		
S	1.5	6.1	1.7	*	.0	.0	9.4	7.1	11.0	7.0	8.0	7.6	7.6	7.5	11.4	11.3		
SW	1.7	12.1	5.3	.1	*	.0	19.2	8.0	21.0	19.8	17.9	17.4	17.8	17.7	21.3	18.8		
W	1.6	10.2	3.3	.1	*	.0	15.1	7.7	15.7	18.7	16.9	15.3	15.2	16.6	12.5	14.4		
NW	1.3	7.8	2.6	.1	*	.0	11.8	8.2	10.6	13.2	14.3	17.0	12.4	14.4	7.8	10.7		
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
CALM	5.7							.0	6.1	4.1	6.9	5.9	5.5	4.0	4.7	5.0		
TOT OBS							63194	8.3	12780	391	13168	4081	15370	1172	12716	3516		
TOT PCT	16.1	57.4	25.4	1.1	*	.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0		

TABLE 3A

WIND DIR	0-6	WIND SPEED (KNOTS)				41+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)			
		7-16	17-27	28-40	00 03					06 09	12 15	18 21	
N	5.9	12.6	2.8	.1	.0		21.4	9.2	17.6	22.3	25.3	19.8	
NE	3.5	5.7	1.0	*	.0		10.3	8.3	10.6	8.6	9.6	12.5	
E	2.1	1.6	.1	*	.0		3.8	6.9	3.9	2.8	3.5	4.9	
SE	2.2	1.1	.1	*	.0		3.4	6.4	3.4	2.5	3.0	4.6	
S	4.7	4.4	.3	*	.0		9.4	7.1	10.9	7.9	7.6	11.3	
SW	6.8	11.4	.0	*	.0		19.2	8.0	21.0	17.8	17.8	20.8	
W	6.2	8.3	.6	*	.0		15.1	7.7	15.8	16.5	15.3	12.9	
NW	4.8	6.4	.5	*	.0		11.8	8.2	10.7	14.9	12.6	8.4	
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	
CALM	5.7						5.7	.0	6.1	6.6	5.4	4.8	
TOT OBS						63194		8.3	13171	17249	16542	16232	
TOT PCT	41.9	51.5	6.4	.1	.0		100.0		100.0	100.0	100.0	100.0	

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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)				48+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47					
0000Z	6.1	10.6	57.4	24.8	1.0	*	.0	.0	8.1	100.0	13171
0600Z	6.6	9.3	57.8	25.0	1.2	*	.0	.0	8.2	100.0	17249
1200Z	5.4	10.2	57.0	26.1	1.3	*	.0	.0	8.4	100.0	16542
1800Z	4.8	11.6	57.3	25.4	1.0	*	.0	.0	8.2	100.0	16232
TOT									8.3		63194
PCT	5.7	10.4	57.4	25.4	1.1	*	.0		100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS) BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8-6	TOTAL	MEAN
				OBSCD	OBS	CLOUD COVER
N	7.7	3.7	5.8	3.5		4.8
NE	4.0	1.9	2.9	1.6		4.9
E	1.0	.8	1.4	1.0		5.2
SE	.4	.5	1.5	1.0		5.7
S	.8	1.2	4.1	3.6		5.8
SW	1.2	2.2	8.5	8.0		5.9
W	1.2	2.0	6.5	5.7		5.6
NW	2.4	1.7	3.8	2.8		5.1
VAR	.0	.0	.0	.0		.0
CALM	1.1	1.0	2.3	1.4		5.1
TOT OBS					32419	5.3
TOT PCT	19.8	14.9	36.8	28.5	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NM >4/8) AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

	000	150	300	600	1000	2000	3500	5000	6500	8000+	NH <5/8	TOTAL
	149	299	599	999	1999	3499	4999	6499	7999		ANY HGT	OBS
N	.1	.1	.2	1.1	1.8	.8	.4	.1	.1	.3	15.7	
NE	*	*	.1	.5	.8	.5	.2	.1	.1	.1	8.0	
E	*	*	.1	.4	.5	.2	.1	*	*	.1	2.7	
SE	*	*	.1	.4	.6	.3	.1	*	*	*	1.9	
S	.1	*	.3	1.5	1.8	.8	.3	.1	*	.1	4.6	
SW	.1	.1	.8	3.3	4.3	1.7	.6	.2	*	.1	8.6	
W	.1	.1	.5	2.4	3.0	1.1	.4	.1	.1	.1	7.6	
NW	*	*	.2	1.0	1.6	.6	.3	.1	*	.1	6.7	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	*	*	.1	.5	.8	.3	.1	*	*	.1	3.7	
TOT OBS											32419	
TOT PCT	.5	.5	2.6	11.2	13.3	6.2	2.3	.7	.4	.9	59.4	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE OF CEILING HEIGHT (NM >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)							
	= OR >10	= OR >5	= OR >2	= OR >1	= OR >1/2	= OR >1/4	= OR >30YD	= OR >0
= OR >6500	1.0	1.3	1.3	1.3	1.3	1.3	1.3	1.3
= OR >5000	1.6	2.0	2.0	2.0	2.0	2.0	2.0	2.0
= OR >3500	3.4	4.2	4.2	4.3	4.3	4.3	4.3	4.3
= OR >2000	8.4	10.2	10.4	10.5	10.5	10.5	10.5	10.5
= OR >1000	20.1	24.9	25.6	25.7	25.7	25.8	25.8	25.8
= OR >600	27.6	35.4	36.6	36.8	36.9	36.9	36.9	36.9
= OR >300	29.0	37.5	39.0	39.3	39.4	39.5	39.5	39.5
= OR >150	29.2	37.9	39.5	39.8	39.9	39.9	39.9	40.0
= OR >0	29.4	38.2	39.9	40.2	40.4	40.4	40.5	40.5

TOTAL NUMBER OF OBS: 33782

PCT FREQ NH <5/8: 59.5

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	OBSCD	TOTAL OBS
12.1	11.5	12.9	12.2	10.3	7.8	9.4	7.8	15.6	.3	35818

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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	*	*	*	*	*	*	*	*	.0	*	.1	
	NO PCP	*	*	*	*	.0	*	*	*	.0	*	.1	
	TOT %	*	*	*	*	*	*	*	*	.0	*	.2	
1/2<1	PCP	*	*	*	*	*	.1	*	*	.0	*	.2	
	NO PCP	*	*	*	*	*	*	*	*	.0	*	.1	
	TOT %	.1	*	*	*	*	.1	*	*	.0	*	.3	
1<2	PCP	*	*	*	*	*	.1	.1	*	.0	*	.4	
	NO PCP	.1	.1	*	*	*	*	*	*	.0	*	.3	
	TOT %	.1	.1	*	*	.1	.2	.1	*	.0	*	.7	
2<5	PCP	.1	*	*	.1	.2	.4	.3	.1	.0	*	1.2	
	NO PCP	.3	.1	.1	.1	.2	.3	.2	.2	.0	.1	1.3	
	TOT %	.4	.2	.1	.1	.3	.6	.4	.3	.0	.1	2.5	
5<10	PCP	.3	.2	.2	.2	.6	1.7	1.1	.4	.0	.2	4.9	
	NO PCP	3.9	1.9	.6	.6	1.4	3.0	2.3	2.1	.0	.9	16.8	
	TOT %	4.2	2.0	.8	.8	2.0	4.7	3.4	2.6	.0	1.1	21.7	
10+	PCP	.2	.2	.1	.1	.4	1.0	.7	.4	.0	.1	3.3	
	NO PCP	16.0	7.8	2.9	2.3	6.5	13.0	10.5	8.2	.0	4.0	71.3	
	TOT %	16.3	7.9	3.0	2.5	7.0	14.0	11.2	8.6	.0	4.1	74.6	
TOT OBS													46287
TOT PCT		21.1	10.3	4.0	3.4	9.4	19.6	15.3	11.5	.0	5.4	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	*	*	*	.0	.0	*	*	.0	.0	*	*	
	4-10	*	*	*	*	*	*	*	*	.0	*	.1	
	11-21	*	*	*	*	*	*	*	*	.0	*	.1	
	22+	.0	.0	.0	*	.0	*	*	.0	.0	*	*	
	TOT %	*	*	*	*	*	.1	*	*	.0	*	.2	
1/2<1	0-3	*	*	*	*	*	*	*	*	.0	*	*	
	4-10	*	*	*	*	*	.1	*	*	.0	*	.2	
	11-21	*	*	*	*	*	*	*	*	.0	*	.1	
	22+	*	*	.0	*	.0	.0	*	.0	.0	*	*	
	TOT %	.1	*	*	*	*	.1	*	*	.0	*	.3	
1<2	0-3	*	*	*	*	*	*	*	*	.0	*	.1	
	4-10	.1	.1	*	*	.1	.1	.1	*	.0	*	.4	
	11-21	.1	*	*	*	*	.1	*	*	.0	*	.2	
	22+	*	*	.0	*	.0	*	*	*	.0	*	*	
	TOT %	.2	.1	*	*	.1	.2	.1	.1	.0	*	.8	
2<5	0-3	*	*	*	*	.1	*	*	.1	.0	.1	.4	
	4-10	.2	.1	.1	.1	.2	.4	.3	.2	.0	*	1.5	
	11-21	.1	.1	*	*	.1	.3	.2	.1	.0	*	.8	
	22+	*	*	*	*	.0	*	*	*	.0	*	*	
	TOT %	.4	.2	.1	.1	.3	.7	.5	.3	.0	.1	2.8	
5<10	0-3	.3	.2	.2	.2	.3	.4	.3	.3	.0	1.1	3.4	
	4-10	2.2	1.1	.4	.5	1.2	2.7	2.2	1.7	.0	*	11.9	
	11-21	1.4	.6	.1	.1	.5	1.5	.9	.6	.0	*	5.7	
	22+	.1	*	.0	*	*	.1	*	*	.0	*	.3	
	TOT %	4.1	1.9	.8	.8	2.0	4.6	3.4	2.6	.0	1.1	21.2	
10+	0-3	1.2	.8	.5	.6	1.1	1.2	1.2	.9	.0	4.3	11.9	
	4-10	8.1	4.3	1.9	1.7	4.7	8.9	7.5	5.9	.0	*	42.9	
	11-21	6.7	2.6	.5	.2	1.2	3.6	2.3	2.0	.0	*	19.1	
	22+	.5	.2	*	*	*	.1	.1	.1	.0	*	.9	
	TOT %	16.5	7.8	2.9	2.5	6.9	13.8	11.1	8.8	.0	4.3	74.6	
TOT OBS													52192
TOT PCT		21.2	10.1	3.8	3.5	9.4	19.4	15.1	11.9	.0	5.6	100.0	

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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NM >4/8) AND
OCCURRENCE OF NM <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NM <5/8 ANY HGT	TOTAL OBS
00003	.4	.3	2.3	10.0	13.7	6.3	2.3	.7	.5	1.1	37.6	62.4	8010
06009	.5	.3	1.6	9.7	14.7	5.9	2.0	.6	.4	.8	36.4	63.6	8203
12015	.6	.7	3.0	12.0	15.7	5.7	2.3	.7	.4	.7	41.9	58.1	10369
18021	.5	.4	3.0	11.4	15.0	6.6	2.2	.7	.3	1.1	41.3	58.7	8301
TOT PCT	.5	.5	2.5	10.9	14.9	6.1	2.2	.7	.4	.9	39.4	60.6	34883 100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.1	.2	.8	2.5	19.1	77.3	11519
06009	.2	.2	.6	1.9	22.7	74.3	14561
12015	.3	.4	1.0	3.4	21.0	74.0	14626
18021	.3	.4	1.0	3.3	23.0	72.0	13822
TOT PCT	.2	.3	.8	2.8	21.5	74.3	54528 100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR
CEILING HGT (FEET, NM >4/8) BY HOUR

HOUR (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND 5+	NM <5/8 AND 5+	TOTAL OBS
00003	.4	3.2	14.4	24.8	60.7	7704
06009	.5	2.6	13.4	24.5	62.1	7926
12015	.6	4.6	18.2	25.1	56.7	10097
18021	.6	4.1	17.2	25.4	57.4	8055
TOT PCT	.5	3.7	16.0	24.9	59.1	33782 100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
95/99	.0	.0	*	*	*	*	*	.0	*	*
90/94	.0	.0	*	.1	.2	.1	*	*	.4	*
85/89	.0	.0	*	.2	1.0	2.3	.8	.2	4.6	*
80/84	.0	.0	*	.1	1.8	13.7	26.5	6.3	48.4	*
75/79	.0	.0	*	*	.2	4.0	22.4	18.0	44.6	*
70/74	.0	.0	.0	.0	*	.1	.4	1.5	1.9	*
65/69	.0	.0	.0	.0	.0	.0	*	*	*	*
TOTAL PCT	.0	.0	*	.4	3.2	20.2	50.1	26.1	41393	100.0

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
95/99	*	*	*	*	*	*	*	*	.0	.0
90/94	.1	.1	*	*	*	*	*	*	.0	*
85/89	1.1	.7	.3	.2	.4	.6	.5	.4	.0	.3
80/84	10.6	5.7	2.0	1.7	4.4	8.2	7.0	5.8	.0	3.1
75/79	8.4	3.9	1.5	1.3	4.3	10.8	7.7	4.4	.0	2.2
70/74	.6	.3	.1	.1	.2	.3	.2	.2	.0	.1
65/69	*	*	.0	*	*	*	.0	*	.0	.0
TOTAL	20.8	10.7	3.9	3.3	9.4	19.9	15.4	10.9	.0	5.6

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	96	86	84	80	76	74	64	80.0	13701
06009	99	84	82	79	76	74	64	78.9	18082
12015	99	84	82	79	75	73	65	78.9	17007
18021	99	90	87	81	76	74	64	81.2	16675
TOT	99	87	84	80	75	73	64	79.7	65465

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-39	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	.3	2.2	20.5	54.8	22.2	84	9578
06009	.0	.2	1.6	13.5	54.0	30.7	86	11206
12015	.0	.2	1.6	13.8	51.7	32.8	86	12159
18021	.0	1.1	7.4	34.1	39.4	17.9	81	10659
TOT	0	1.98	14.03	88.42	217.62	113.97	34	43602

NAVAL WEATHER SERVICE DETACHMENT ASHEVILLE N C F/G 4/2
SUMMARY OF SYNOPTIC METEOROLOGICAL OBSERVATIONS (SSMO) SOUTH AM--ETC(U)
FEB 79

F/G 4/2

NL

6 OF 6

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DPC

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TABLE 17

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PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	61 64	65 68	69 72	73 76	77 80	81 84	85 88	89 92	>92	TOT	N FOG	NO FOG
20/22	.0	.0	.0	.0	.0	*	.0	*	*	3	.0	*
17/19	.0	.0	.0	.0	*	.0	*	*	*	9	.0	*
14/16	.0	.0	.0	.0	*	*	*	*	*	46	.0	.1
11/13	.0	.0	.0	*	*	.1	.1	.1	*	121	*	.3
9/10	.0	.0	.0	*	.1	.2	.2	.1	*	273	*	.6
7/8	.0	.0	.0	*	.3	.4	.4	.2	*	573	*	1.2
6	.0	.0	*	.1	.2	.4	.3	.1	.0	470	*	1.0
5	.0	.0	*	.1	.4	.5	.5	.1	*	780	*	1.7
4	.0	*	*	.3	.7	1.1	.6	*	*	1290	.1	2.7
3	.0	.0	*	.4	.9	1.4	.7	*	.0	1525	.1	3.2
2	.0	*	.1	.5	1.8	3.3	.6	*	*	2809	.1	6.1
1	.0	*	*	.6	2.9	4.1	.5	*	.0	3681	.2	7.9
0	.0	*	.1	.7	6.3	7.0	.3	*	.0	6351	.3	14.0
-1	.0	.0	*	.4	8.3	5.4	.1	.0	.0	6254	.3	14.0
-2	*	*	*	.6	10.6	4.3	*	*	.0	6785	.2	15.5
-3	*	.0	*	.8	8.0	2.1	*	.0	.0	4699	.1	10.8
-4	*	.0	*	1.2	5.9	1.1	*	.0	.0	3522	*	8.1
-5	.0	*	*	1.0	3.6	.6	*	.0	.0	2250	*	5.2
-6	.0	.0	*	.9	1.7	.1	*	.0	.0	1181	*	2.7
-7/-8	.0	*	*	.9	1.3	.1	*	.0	.0	1021	*	2.4
-9/-10	.0	*	.1	.4	.2	*	.0	.0	.0	260	.0	.6
-11/-13	.0	*	.1	.1	.1	*	.0	.0	.0	87	*	.2
-14/-16	.0	*	*	*	*	.0	.0	.0	.0	8	.0	*
-17/-19	.0	*	.0	.0	.0	.0	.0	.0	.0	1	.0	*
TOTAL										44011		
PCT	*	*	.5	8.9	53.3	32.2	4.4	.6	.1	100.0	1.5	98.5

PERIOD: (OVER-ALL) 1963-1978

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	N 22-33	34-47	48+	PCT	1-3	4-10	11-21	NE 22-33	34-47	48+	PCT
41	.6	1.4	.1	.0	.0	.0	2.1	.4	.9	*	.0	.0	.0	1.3
1-2	.5	5.5	2.5	.0	.0	.0	8.5	.3	3.3	1.2	1.0	.0	.0	4.8
3-4	.1	2.4	4.0	.2	.0	.0	6.6	*	1.2	1.7	.1	.0	.0	3.0
5-6	*	.4	2.2	.2	.0	.0	2.8	*	.2	.9	.1	.0	.0	1.1
7	*	*	.7	.2	.0	.0	.9	.0	*	.3	.1	.0	.0	.4
8-9	.0	*	.1	.1	.0	.0	.2	*	*	.1	.1	.0	.0	.1
10-11	.0	.0	*	*	.0	.0	.1	.0	*	*	*	.0	.0	.1
12	.0	*	*	.0	.0	.0	*	.0	.0	*	*	.0	.0	*
13-16	.0	.0	*	.0	.0	.0	*	.0	.0	*	.0	.0	.0	*
17-19	.0	.0	.0	.0	.0	.0	*	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.1	9.8	9.6	.6	.0	.0	21.1	.7	3.6	4.2	.3	*	.0	10.8

HGT	1-3	4-10	11-21	E 22-33	34-47	48+	PCT	1-3	4-10	11-21	SE 22-33	34-47	48+	PCT
41	.3	.6	.0	.0	.0	.0	.9	.3	.6	*	.0	.0	.0	.9
1-2	.3	1.7	.3	.0	.0	.0	2.3	*	1.3	.2	.0	.0	.0	1.7
3-4	*	.5	.3	.0	.0	.0	.8	*	.3	.2	*	.0	.0	.6
5-6	.0	*	.1	*	.0	.0	.2	.0	*	*	*	.0	.0	.1
7	.6	*	*	.0	.0	.0	.1	.0	*	*	*	.0	.0	*
8-9	*	.0	*	.0	.0	.0	*	.0	*	*	.0	.0	.0	*
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.6	2.8	.8	*	.0	.0	4.2	.5	2.3	.3	*	.0	.0	3.3

PERIOD: (OVER-ALL) 1963-1978

ANNUAL
TABLE 18 (CONT)AREA 0036 GULF OF PANAMA
6.8N 79.9W

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.5	1.0	*	.0	.0	.0	1.6	.7	1.5	.1	.0	.0	.0	2.3
1-2	.5	3.4	.6	.0	.0	.0	4.5	.5	7.0	1.3	.0	.0	.0	8.8
3-4	.1	1.4	1.0	.0	.0	.0	2.4	.1	3.3	2.9	*	.0	.0	6.4
5-6	*	.2	.4	*	.0	.0	.6	*	.4	1.6	*	.0	.0	2.0
7	*	*	.1	*	.0	.0	.2	*	.1	.4	*	.0	.0	.5
8-9	.0	.0	*	*	.0	.0	*	.0	.1	*	*	.0	.0	.1
10-11	.0	*	*	.0	.0	.0	*	*	*	*	.0	*	.0	*
12	.0	.0	*	.0	.0	.0	.0	.0	.0	*	.0	.0	.0	*
13-16	.0	*	*	.0	.0	.0	*	.0	*	.0	.0	.0	.0	*
17-19	.0	*	.0	.0	.0	.0	*	.0	*	.0	.0	.0	.0	*
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.1	6.2	2.1	.1	.0	.0	9.4	1.3	12.4	6.3	.1	*	.0	20.1

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.6	1.5	.1	.0	.0	.0	2.2	.4	1.1	*	.0	.0	.0	1.5	
1-2	.5	5.7	1.0	.0	.0	.0	7.2	.4	4.0	.9	.0	.0	.0	5.3	
3-4	.1	2.4	1.7	*	.0	.0	4.2	*	1.3	1.1	.1	.0	.0	2.6	
5-6	*	.3	.8	*	.0	.0	1.2	*	.2	.4	*	.0	.0	.7	
7	.0	*	.2	*	.0	.0	.2	*	*	.1	*	.0	.0	.1	
8-9	.0	*	*	*	*	.0	.1	.0	*	*	*	.0	.0	*	
10-11	.0	*	*	*	*	.0	*	.0	.0	*	.0	.0	.0	*	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	*	.0	.0	.0	*	
13-16	.0	*	.0	.0	.0	.0	*	.0	.0	*	.0	.0	.0	*	
17-19	.0	*	*	.0	.0	.0	*	.0	.0	*	.0	.0	.0	*	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	1.2	10.0	3.9	.1	*	.0	15.1	.8	6.6	2.6	.1	.0	.0	10.1	94.1

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	11.0	8.6	.4	.0	.0	.0	20.0	
1-2	3.9	31.3	7.7	.0	.0	.0	42.9	
3-4	.4	12.4	12.4	.4	.0	.0	25.6	
5-6	.1	1.8	6.1	.4	.0	.0	8.4	
7	*	.2	1.8	.3	*	.0	2.3	
8-9	*	*	.3	.1	*	.0	.6	
10-11	*	*	.1	.1	*	.0	.2	
12	.0	*	*	*	.0	.0	*	
13-16	.0	*	*	.0	.0	.0	*	
17-19	.0	*	*	.0	.0	.0	*	
20-22	.0	.0	*	.0	.0	.0	*	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	15.4	54.4	28.9	1.2	*	.0	100.0	18012

PERIOD: (OVER-ALL) 1949-1977

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	5.7	20.8	20.0	6.9	1.8	.5	.1	*	*	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	16368	3
6-7	.1	2.5	7.2	6.2	2.1	.5	.2	*	*	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	5500	4
8-9	*	.8	2.1	2.0	1.0	.4	.1	*	*	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	1882	5
10-11	.0	1.0	.6	.6	.3	.1	.1	*	*	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	793	4
12-13	.0	.0	1.1	.3	.2	*	*	*	*	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	506	4
>13	.0	*	.0	.4	.2	*	*	*	*	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	205	7
INDEF	6.6	2.4	2.7	1.2	.4	.1	*	*	*	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	3998	2
TOTAL																				29232	3
PCT	12.5	27.5	33.8	17.5	5.8	1.8	.6	.2	.1	.1	*	*	.0	.0	.0	.0	.0	.0	.0	100.0	

PERIOD: (PRIMARY) 1930-1978
(OVER-ALL) 1861-1978

TABLE 20

AREA 0036 GULF OF PANAMA
6.8N 79.9W

PERCENT FREQUENCY OF OCCURRENCE OF SEA TEMP (DEG F) BY MONTH

SEA TMP DEG F	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANN	PCT
96+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
95/96	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
93/94	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	4	.0
91/92	.0	.1	.0	.0	.1	.0	.0	.1	.0	.0	.0	.0	19	.0
89/90	.1	.1	.1	.1	.2	.2	.2	.2	.1	.2	.1	.0	84	.1
87/88	.4	.2	.6	.8	1.4	.9	.8	.6	.9	.8	.2	.4	412	.7
85/86	2.1	2.4	2.5	3.8	9.7	6.8	5.8	4.8	5.7	4.5	2.6	2.3	2543	4.1
83/84	8.4	7.0	6.6	11.7	22.9	26.2	20.8	20.9	23.2	17.5	14.0	10.7	9626	15.7
81/82	29.1	18.4	15.1	24.9	45.2	42.9	45.2	45.4	42.1	40.7	39.6	43.9	21859	35.5
79/80	37.3	24.8	18.1	25.9	19.7	19.0	22.0	22.8	23.2	29.7	34.2	35.1	15877	25.8
77/78	14.5	19.8	19.0	16.8	2.7	2.7	3.7	4.0	3.7	4.9	7.5	5.9	5544	9.0
75/76	5.5	12.7	14.4	9.3	.7	.7	.7	.5	.5	.9	1.1	1.1	2618	4.3
73/74	1.6	7.8	11.1	3.8	.2	.4	.3	.4	.3	.2	.3	.2	1476	2.4
71/72	.7	4.0	6.9	1.6	.2	.0	.2	.2	.1	.2	.1	.1	803	1.3
69/70	.3	1.7	3.5	.9	.1	.1	.2	.1	.2	.2	.1	.1	412	.7
67/68	.0	.7	1.4	.2	.0	.0	.0	.0	.0	.0	.1	.1	146	.2
65/66	.1	.2	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	51	.1
63/64	.0	.1	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	22	.0
61/62	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	5	.0
59/60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
57/58	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
55/56	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
53/54	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
51/52	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
49/50	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
47/48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
45/46	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
43/44	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
41/42	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
39/40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
37/38	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
35/36	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
33/34	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
31/32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
29/30	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
27/28	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
<27	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
TOTAL	5243	5274	5994	5226	5621	4973	4881	4939	4751	4987	4922	4690	61501	100.0
MEAN	79.9	78.3	77.5	79.6	81.8	81.8	81.5	81.4	81.6	81.2	80.8	80.8	80.5	

TABLE 21

PRESSURE (MB)

AVERAGE BY HOUR (GMT)

MO	0000	0300	0600	0900	1200	1500	1800	2100	MEAN	TOTAL OBS
JAN	1009	1011	1010	1009	1010	1011	1011	1009	1010	4683
FEB	1009	1010	1011	1010	1011	1012	1011	1009	1010	4666
MAR	1009	1010	1010	1009	1011	1011	1011	1009	1010	5404
APR	1009	1012	1010	1009	1011	1011	1011	1008	1010	4804
MAY	1010	1011	1011	1009	1011	1011	1011	1009	1010	5200
JUN	1010	1012	1011	1010	1011	1012	1011	1009	1011	4552
JUL	1010	1011	1011	1010	1011	1011	1011	1009	1011	4351
AUG	1010	1011	1011	1009	1011	1011	1011	1009	1011	4352
SEP	1010	1011	1011	1009	1011	1011	1011	1009	1010	4248
OCT	1010	1011	1011	1009	1011	1011	1011	1009	1010	4487
NOV	1010	1011	1010	1009	1011	1011	1011	1009	1010	4261
DEC	1009	1010	1010	1009	1010	1011	1010	1009	1010	4328
ANN	1010	1011	1011	1009	1011	1011	1011	1009	1010	55336
OBS	11363	399	11905	2669	13939	1168	11544	2355		

PERCENTILES

MO	MIN	1%	5%	25%	50%	75%	95%	99%	MAX
JAN	998	1004	1007	1009	1010	1011	1014	1016	1020
FEB	998	1004	1007	1009	1010	1012	1014	1016	1023
MAR	1000	1004	1006	1009	1010	1012	1014	1015	1023
APR	997	1004	1007	1009	1010	1011	1013	1016	1026
MAY	1000	1005	1007	1009	1010	1012	1013	1015	1023
JUN	1001	1004	1007	1009	1011	1012	1014	1017	1023
JUL	999	1005	1007	1009	1011	1012	1014	1015	1021
AUG	999	1005	1008	1010	1011	1012	1014	1016	1022
SEP	999	1005	1007	1009	1011	1012	1014	1016	1025
OCT	998	1005	1007	1009	1011	1012	1013	1015	1021
NOV	998	1004	1007	1009	1010	1012	1013	1015	1022
DEC	998	1004	1006	1009	1010	1011	1013	1016	1021

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TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

PRECIPITATION TYPE										OTHER WEATHER PHENOMENA					
WIND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
N	19.0	.0	14.3	.0	.0	.0	.0	33.3	.0	.0	.0	.0	.0	.0	66.7
NE	.0	.0	5.3	.0	.0	.0	.0	5.3	.0	.0	.0	.0	.0	.0	94.7
E	2.7	2.7	.0	.0	.0	.0	.0	5.4	.0	.0	.0	.0	2.7	.0	91.9
SE	.4	1.3	.0	.0	.0	.0	.0	1.8	2.5	.0	.2	.0	2.3	.0	93.2
S	1.4	1.8	.5	.0	.0	.0	.0	3.6	5.1	.5	1.6	.0	.8	.0	88.4
SW	7.1	.0	2.4	.0	.0	.0	.0	9.4	.0	.0	2.4	.0	.0	.0	88.2
W	5.6	.0	5.6	.0	.0	.0	.0	11.3	.0	.0	.0	.0	.0	.0	88.7
NW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	10.0	.0	.0	.0	.0	.0	10.0	10.0	.0	.0	.0	.0	.0	80.0
TOT PCT	1.7	1.5	.7	.0	.0	.0	.0	4.0	3.1	.2	.9	.0	1.4	.0	90.5
TOT OBS:	582														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE								OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
00603	1.2	.6	1.2	.0	.0	.0	.0	2.9	4.1	.0	1.2	.0	.6	.0	.0	91.2
06009	1.7	.0	.9	.0	.0	.0	.0	2.6	6.1	.0	.0	.0	2.6	.0	.0	88.7
12015	2.6	3.2	.0	.0	.0	.0	.0	5.8	1.9	.0	.6	.0	.6	.0	.0	90.9
18021	1.1	1.7	.6	.0	.0	.0	.0	3.3	.6	.6	1.7	.0	1.7	.0	.0	92.2
TOT PCT	1.6	1.5	.6	.0	.0	.0	.0	3.7	2.9	.2	1.0	.0	1.3	.0	.0	91.0
TOT OBS:	620															

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)						
	0-3	4-10	11-21	22-33	34-47	48+	00				03	06	09	12	15	18	21
N	.4	.5	.1	.0	.0	.0		1.0	5.2	1.2	.0	.6	.0	.6	.0	1.7	3.0
NE	.3	.3	.1	.0	.0	.0		.8	5.9	1.2	.0	1.7	.0	.9	1.8	.0	.0
E	1.3	3.8	1.4	.1	.0	.0		6.6	7.6	3.0	5.4	8.4	10.5	4.3	9.2	9.5	2.3
SE	4.0	28.9	4.5	.0	.0	.0		37.4	7.0	39.8	47.8	32.4	23.0	37.5	33.8	39.3	34.1
S	3.5	30.2	5.7	.0	.0	.0		39.3	7.6	38.2	31.0	43.5	51.3	42.2	39.5	35.1	43.9
SW	1.5	5.5	.8	.0	.0	.0		7.7	6.4	7.8	5.8	10.1	2.6	7.8	8.8	7.4	7.6
W	1.1	1.4	.3	.0	.0	.0		2.7	5.8	3.0	7.6	.0	5.3	3.0	.0	3.5	3.0
NW	.3	1.8	.1	.0	.0	.0		2.3	5.6	2.6	4.3	.0	5.3	.2	7.0	2.3	3.0
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	2.2							2.2	.0	3.2	.0	3.4	.0	3.4	.0	1.2	3.0
TOT OBS	100	497	90	1	0	0	688		7.0	125	46	119	19	116	57	173	33
TOT PCT	14.5	72.2	13.1	.1	.0	.0	100.0			100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)					TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)			
	0-6	7-16	17-27	28-40	41+				00 03	06 09	12 15	18 21
N	.6	.4	.0	.0	.0		1.0	5.2	.9	.5	.4	1.9
NE	.6	.2	.0	.0	.0		.8	5.9	.9	1.4	1.2	.0
E	3.4	2.8	.4	.0	.0		6.6	7.6	3.7	8.7	5.9	8.4
SE	18.9	18.3	.2	.0	.0		37.4	7.0	42.0	31.3	36.3	38.5
S	16.5	22.4	.4	.0	.0		39.3	7.6	36.3	44.6	41.3	36.5
SW	4.6	3.2	.0	.0	.0		7.7	6.4	6.7	9.1	8.1	7.4
W	1.9	.5	.3	.0	.0		2.7	5.8	4.2	.7	2.0	3.4
NW	1.6	.6	.0	.0	.0		2.3	5.6	3.1	.7	2.5	2.4
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0
CALM	2.2						2.2	.0	2.3	2.9	2.3	1.5
TOT OBS	346	333	9	0	0	688		7.0	171	138	173	206
TOT PCT	50.3	48.4	1.3	.0	.0		100.0		100.0	100.0	100.0	100.0

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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOOR	CALM	1-3	4-10	WIND SPEED (KNOTS)				48+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47					
00003	2.3	10.5	76.0	11.1	.0	.0	.0	.0	7.1	100.0	171
06009	2.9	8.0	77.5	11.6	.0	.0	.0	.0	6.8	100.0	198
12015	2.3	17.9	63.6	16.2	.0	.0	.0	.0	6.8	100.0	173
18021	1.5	12.1	72.8	13.1	.5	.0	.0	.0	7.1	100.0	206
TOT	15	85	497	90	1	0	0	0	7.0		688
PCT	2.2	12.4	72.2	13.1	.1	.0	.0	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS) BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	.2	.0	.4	.4	6.2	
NE	.4	.0	.4	.2	4.2	
E	1.7	1.3	1.5	1.2	4.5	
SE	9.7	9.1	13.7	6.0	4.6	
S	8.3	6.8	14.3	9.8	5.1	
SW	1.1	1.0	3.6	1.4	5.4	
W	.4	.6	1.6	.5	5.5	
NW	1.3	.3	.5	.2	3.6	
VAR	.0	.0	.0	.0	4.0	
CALM	.7	.2	.5	.7	4.8	
TOT OBS	100	81	153	86	420	4.9
TOT PCT	23.8	19.2	36.4	20.5	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8) AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

000	150	300	600	1000	2000	3500	5000	6500	8000+	NH <5/8	TOTAL
149	299	599	999	1999	3499	4999	6499	7999		ANY HGT	OBS
.0	.0	.2	.0	.2	.2	.0	.0	.2	.0	.2	
.0	.0	.0	.0	.1	.1	.0	.0	.0	.1	.2	.5
.0	.0	.0	1.1	.2	.5	.4	.0	.0	.0	3.5	
.0	.2	.7	1.4	7.5	1.3	.8	.5	.0	.2	25.7	
.0	.2	.3	5.2	8.2	3.3	.7	.4	.0	.0	21.1	
.0	.0	.2	.9	1.3	.7	.0	.0	.0	.2	3.8	
.0	.0	.0	.2	1.1	.0	.0	.2	.0	.0	1.5	
.0	.0	.0	.2	.0	.5	.0	.0	.0	.0	1.5	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
.0	.0	.0	.0	.5	.2	.0	.0	.0	.0	1.2	
.0	.2	.7	.39	.81	.26	.8	.5	.1	.3	24.8	420
.0	.5	1.7	9.3	19.3	6.2	1.9	1.2	.2	.7	59.0	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)				= OR >1/2	= OR >1/4	= OR >50YD	= OR >0
	= OR >10	= OR >5	= OR >2	= OR >1				
= OR >6500	.9	.9	.9	.9	.9	.9	.9	.9
= OR >5000	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
= OR >3500	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2
= OR >2000	10.1	10.6	10.6	10.6	10.6	10.6	10.6	10.6
= OR >1000	26.7	29.3	29.3	29.3	29.3	29.3	29.3	29.3
= OR >600	33.9	38.1	38.3	38.3	38.3	38.3	38.3	38.3
= OR >300	35.0	39.4	39.9	39.9	39.9	39.9	39.9	39.9
= OR >150	35.5	39.9	40.3	40.3	40.3	40.3	40.3	40.3
= OR >0	35.5	39.9	40.3	40.3	40.3	40.3	40.3	40.3
TOTAL	161	181	183	183	183	183	183	183

TOTAL NUMBER OF OBSI 454

PCT FREQ NH <5/81 59.7

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8 OBSCD	TOTAL OBS
4.7	12.8	22.0	12.4	7.9	6.8	8.3	9.8	15.4	.0
									469

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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1/2<1	PCP	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.2	.2
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.2	.2
1<2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2<5	PCP	.2	.0	.0	.0	.2	.2	.0	.0	.0	.0	.4	.4
	NO PCP	.0	.0	.4	.0	.2	.0	.0	.2	.0	.0	.7	.7
	TOT %	.2	.0	.4	.0	.2	.2	.0	.2	.0	.0	1.1	1.1
5<10	PCP	.0	.0	.2	.5	.4	.3	.2	.0	.0	.0	1.6	1.6
	NO PCP	.0	.0	.0	5.0	4.4	.9	.1	.0	.0	.2	11.1	11.1
	TOT %	.0	.0	.2	5.5	5.2	1.2	.3	.0	.0	.2	12.6	12.6
10+	PCP	.1	.8	.2	.2	.8	.2	.2	.0	.0	.2	1.9	1.9
	NO PCP	.4	.8	5.8	33.3	31.4	5.8	2.6	2.5	.0	1.4	84.2	84.2
	TOT %	.6	.8	6.0	33.5	32.2	6.1	2.8	2.5	.0	1.6	86.1	86.1
TOT OBS		.7	.8	6.5	39.0	37.8	7.5	3.1	2.7	.0	1.8	100.0	570
TOT PCT													

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.2	.2
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.2	.2
1<2	0-3	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.2
	4-10	.0	.0	.1	.1	.0	.0	.0	.0	.0	.0	.2	.2
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.2	.0	.1	.1	.0	.0	.0	.0	.0	.0	.3	.3
2<5	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.2	.0	.3	.0	.2	.0	.0	.2	.0	.0	.9	.9
	11-21	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.2	.2
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.2	.0	.3	.0	.2	.2	.0	.2	.0	.0	1.0	1.0
5<10	0-3	.0	.0	.0	1.0	.6	.1	.0	.0	.0	.2	1.9	1.9
	4-10	.0	.0	.2	3.8	3.9	1.0	.2	.0	.0	.0	9.1	9.1
	11-21	.0	.0	.0	.7	.7	.2	.0	.0	.0	.0	1.6	1.6
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.2	5.5	5.2	1.2	.3	.0	.0	.2	12.6	12.6
10+	0-3	.1	.3	1.2	3.5	2.8	1.3	1.1	.4	.0	1.6	12.4	12.4
	4-10	.3	.3	3.5	25.3	24.2	4.2	1.3	2.0	.0	.0	61.0	61.0
	11-21	.2	.2	1.1	4.5	4.1	.6	.3	.2	.0	.0	12.2	12.2
	22+	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	.2	.2
	TOT %	.6	.8	6.0	33.4	32.1	6.0	2.8	2.5	.0	1.6	85.8	85.8
TOT OBS		.9	.8	6.6	39.0	37.7	7.4	3.1	2.7	.0	1.7	100.0	572
TOT PCT													

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TABLE 10

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PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NH >4/8) AND
OCCURRENCE OF NH <5/8 BY HOUR

HR	000	150	300	600	1000	2000	3500	5000	6500	8000+	TOTAL	NH <5/8 ANY MGT	TOTAL OBS
(GMT)	149	299	599	999	1999	3499	4999	6499	7999				
00003	.0	.0	2.3	9.9	15.3	3.8	2.3	.0	.8	.8	35.1	64.9	131
06009	.0	1.0	.0	9.3	15.5	7.2	1.0	1.0	.0	1.0	36.1	63.9	97
12015	.0	.9	1.8	10.6	26.5	8.8	3.5	1.8	.0	.0	54.0	46.0	113
18021	.0	.0	1.6	5.7	16.4	5.7	1.6	1.6	.0	.8	33.6	66.4	122
TOT	0	2	7	41	85	29	10	5	1	3	183	280	463
PCT	.0	.4	1.5	8.9	18.4	6.3	2.2	1.1	.2	.6	39.5	60.5	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NH) BY HOUR

HR	<1/2	1/2<1	1<2	2<3	3<10	10+	TOTAL OBS
(GMT)							
00003	.0	.0	.0	1.2	10.2	88.6	167
06009	.0	.0	.9	.0	13.0	86.1	115
12015	.0	.0	.0	1.3	15.8	82.9	152
18021	.0	.6	.6	1.1	9.7	88.1	176
TOT	0	1	2	6	73	528	610
PCT	.0	.2	.3	1.0	12.0	86.6	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NH) AND/OR
CEILING HGT (FEET, NH >4/8), BY HOUR

HR	<150 <500	<600 <1	<1000 <5	1000+ AND 5+	NH <5/8 AND 5+	TOTAL OBS
(GMT)						
00003	.0	2.3	12.5	23.4	64.1	128
06009	.0	1.1	10.8	26.9	62.4	93
12015	.0	2.7	13.5	41.4	45.0	111
18021	.0	1.6	7.4	26.2	66.4	122
TOT	0	9	50	133	271	454
PCT	.0	2.0	11.0	29.3	59.7	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
90/94	.0	.0	.0	.0	.0	.0	.2	.0	1	.2
85/89	.0	.0	.0	.3	1.2	.7	.3	.5	18	3.0
80/84	.0	.0	.0	.2	.8	6.4	6.8	2.2	97	16.4
75/79	.0	.0	.0	.0	.2	6.9	31.6	17.9	335	56.7
70/74	.0	.0	.0	.0	.0	.2	7.3	16.2	140	23.7
TOT	0	0	0	3	13	84	273	218	591	100.0
PCT	.0	.0	.0	.5	2.2	14.2	46.2	36.9		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
90/94	.0	.0	.0	.0	.0	.0	.2	.0	.0
85/89	.0	.0	.7	1.4	.6	.0	.2	.2	.0
80/84	.2	.0	1.8	8.8	3.3	.4	.5	1.2	.3
75/79	.7	.7	3.0	20.3	23.8	4.0	1.5	1.1	.0
70/74	.1	.2	1.2	8.2	10.7	2.2	.3	.0	.7
TOT	1.0	.9	6.8	38.7	38.3	6.6	2.5	2.6	.0

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HR	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
(GMT)									
00003	86	84	82	77	73	72	72	77.2	187
06009	80	79	79	75	71	71	71	75.1	139
12015	89	85	82	76	72	71	70	76.0	174
18021	90	89	86	79	73	73	73	79.1	221
TOT	90	88	83	77	73	71	70	77.1	721

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HR	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
(GMT)										
00003	.0	.6	1.2	16.1	53.4	28.6	86	161		
06009	.0	.0	.0	4.0	36.8	59.2	90	125		
12015	.0	.0	.0	9.4	37.7	52.8	89	139		
18021	.0	1.6	7.7	28.0	51.1	11.5	81	182		
TOT	0	4	16	97	285	225	86	627		

JANUARY

PERIOD: (PRIMARY) 1942-1978
(OVER-ALL) 1878-1978

TABLE 17

AREA 0037 GALAPAGOS ISLANDS
.95 90.0MPCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	69 72	73 76	77 80	81 84	83 88	TOT	W FOG	WD FOG
9/10	.0	.0	.0	.0	.4	2	.0	.4
7/8	.0	.4	.0	.4	.2	5	.0	1.0
6	.0	.4	.4	.6	.4	9	.0	1.7
5	.0	.2	1.0	.6	.2	10	.0	1.9
4	.0	.6	1.7	1.7	.2	22	.0	4.3
3	.0	1.0	3.1	.8	.0	25	.0	4.8
2	.2	3.1	5.4	.6	.0	48	.0	9.3
1	.2	6.4	6.4	1.0	.0	72	.0	14.0
0	1.2	11.6	9.9	1.9	.0	127	.8	23.8
-1	1.2	9.3	5.4	1.0	.0	87	.4	16.5
-2	.8	5.0	3.1	.0	.0	46	.0	8.9
-3	1.0	3.5	.4	.0	.0	25	.0	4.8
-4	.0	2.5	1.4	.0	.0	20	.0	3.9
-5	.2	1.9	.6	.0	.0	14	.0	2.7
-6	.0	.4	.0	.0	.0	2	.0	.4
-7/-8	.0	.4	.0	.0	.0	2	.0	.4
TOTAL	24	241	200	44	7	516	6	510
PCT	4.7	46.7	38.8	8.5	1.4	100.0	1.2	98.8

PERIOD: (OVER-ALL) 1963-1978

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.3	.3	.0	.0	.0	.6	.0	.1	.0	.0	.0	.0	.1
1-2	.0	.3	.0	.0	.0	.0	.3	.0	.1	.0	.0	.0	.0	.1
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.3	.0	.0	.0	.0	.3
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	.0	.0	.0	.3
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.5	.3	.0	.0	.0	.8	.0	.3	.3	.0	.0	.0	.8

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.3	.0	.8	.0	.0	.0	1.2	1.5	3.5	2.7	.0	.0	.0	7.7
1-2	.3	2.1	.3	.0	.0	.0	2.8	1.3	17.9	1.9	.0	.0	.0	21.2
3-4	.0	.9	.3	.0	.0	.0	1.3	.0	7.6	2.8	.0	.0	.0	10.4
5-6	.0	.3	.0	.0	.0	.0	.3	.0	.2	.8	.0	.0	.0	.9
7	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.1
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.3	.0	.0	.0	.0	.3
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.7	3.3	1.5	.0	.0	.0	9.5	2.9	29.5	8.2	.0	.0	.0	40.7

PERIOD: (OVER-ALL) 1963-1978

JANUARY

AREA 0037 GALAPAGOS ISLANDS
.95 90.0W

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	2.5	6.5	3.2	.0	.0	.0	12.2	.3	.6	.0	.0	.0	.0	.9	
1-2	.0	15.9	3.1	.0	.0	.0	19.0	.3	2.1	.3	.0	.0	.0	2.8	
3-4	.0	6.6	1.2	.0	.0	.0	7.7	.0	.4	.4	.0	.0	.0	.8	
5-6	.0	.3	.9	.0	.0	.0	1.2	.0	.0	.0	.0	.0	.0	.0	
7	.0	.3	.0	.0	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.3	.0	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	2.5	29.5	8.7	.0	.0	.0	40.7	.7	3.1	.8	.0	.0	.0	4.5	

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.3	.9	.0	.0	.0	.0	1.2	.4	2.4	.0	.0	.0	.0	2.8	
1-2	.0	.3	.0	.0	.0	.0	.7	.0	.0	.3	.0	.0	.0	.3	
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.3	1.3	.3	.0	.0	.0	1.9	.4	2.4	.3	.0	.0	.0	3.1	98.0

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	8.3	14.2	6.9	.0	.0	.0	29.4	
1-2	2.3	38.3	6.3	.0	.0	.0	46.9	
3-4	.0	15.3	4.6	.0	.0	.0	20.1	
5-6	.0	.7	2.0	.0	.0	.0	2.6	
7	.0	.3	.0	.0	.0	.0	.3	
8-9	.0	.0	.3	.0	.0	.0	.3	
10-11	.0	.0	.0	.0	.0	.0	.0	
12	.0	.3	.0	.0	.0	.0	.3	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	10.6	69.3	20.1	.0	.0	.0	100.0	303

PERIOD: (OVER-ALL) 1950-1978

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	2.9	15.9	19.3	2.9	1.9	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	163	3
6-7	.3	1.1	9.0	6.9	2.6	.3	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	78	4
8-9	.0	.3	2.1	2.6	.8	.3	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	24	5
10-11	.0	2.1	.5	.0	1.1	.3	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	16	5
12-13	.0	.0	2.1	.0	.3	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	10	4
>13	.0	.0	.0	.8	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	5	6
JMDET	13.9	2.4	1.6	.8	.5	.3	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	82	1
TOTAL	72	82	131	53	29	6	2	2	1	0	0	0	0	0	0	0	0	0	0	378	3
PCT	19.0	21.7	34.7	14.0	7.7	1.6	.5	.5	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	

PERIOD: (PRIMARY) 1942-1978
(OVER-ALL) 1912-1978

FEBRUARY

AREA 0097 GALAPAGOS ISLANDS
.95 90.1W

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
N	5.1	.0	10.3	.0	.0	.0	.0	15.4	.0	.0	.0	.0	.0	.0	84.6
NE	1.4	2.7	.0	.0	.0	.0	.0	4.1	2.7	.0	4.1	.0	2.7	.0	86.3
E	1.6	2.8	.0	.0	.0	.0	.0	4.3	.0	.0	3.5	.0	1.2	.0	90.9
SE	2.4	.7	.0	.0	.0	.0	.0	3.1	1.3	.0	.8	.0	.1	.0	94.7
S	.7	3.1	2.0	.0	.0	.0	.0	5.8	2.4	.0	3.4	.0	.0	.0	88.4
SW	3.9	2.7	.0	.0	.0	.0	.0	6.6	1.2	.0	.8	.0	.0	.0	91.5
W	4.4	1.5	2.9	.0	.0	.0	.0	8.8	.0	.0	.0	.0	.0	.0	91.2
NW	4.8	.0	4.8	.0	.0	.0	.0	9.5	9.5	.0	.0	.0	.0	.0	81.0
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	2.9	2.9	.0	.0	.0	.0	5.7	2.9	.0	2.9	.0	2.9	.0	85.7
TOT PCT	2.1	1.9	1.1	.0	.0	.0	.0	5.1	1.8	.0	1.9	.0	.5	.0	90.7
TOT OBS:	622														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
00003	2.7	2.2	.0	.0	.0	.0	.0	4.9	1.6	.0	1.1	.0	.5	.0	91.8
06009	3.2	1.3	2.5	.0	.0	.0	.0	7.0	2.5	.0	2.5	.0	.6	.0	87.3
12019	1.1	1.1	1.1	.0	.0	.0	.0	3.3	1.1	.0	3.3	.0	.5	.0	91.8
18021	.5	2.5	.5	.0	.0	.0	.0	3.5	1.0	.0	2.0	.0	.5	.0	93.0
TOT PCT	1.8	1.8	1.0	.0	.0	.0	.0	4.6	1.5	.0	2.2	.0	.6	.0	91.1
TOT OBS:	721														

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	48+					00	03	06	09	12	15	18	21
N	.6	.8	.3	.0	.0	.0		1.7	6.5		1.8	3.2	.9	3.8	1.4	.0	2.3	1.7
NE	1.6	3.9	.6	.1	.0	.0		6.2	6.4		3.8	5.2	10.3	5.8	.2	2.3	8.7	12.8
E	3.7	5.9	.7	.0	.0	.0		10.3	5.1		11.1	15.7	3.1	5.8	8.7	20.0	12.0	6.1
SE	7.2	22.6	4.0	.0	.0	.0		33.8	6.5		37.5	28.6	31.7	30.8	48.1	26.3	32.9	21.7
S	4.9	15.3	3.3	.0	.0	.0		23.4	6.6		22.6	19.8	28.1	38.5	22.4	26.0	20.7	22.8
SW	1.5	7.7	.7	.0	.0	.0		9.9	5.9		6.9	19.4	7.6	7.7	6.4	15.3	8.1	19.4
W	1.1	3.8	.5	.0	.0	.0		5.3	6.3		7.5	3.2	2.7	.0	2.8	3.3	9.1	4.4
NW	.8	1.5	.7	.0	.0	.0		3.0	6.7		3.2	4.8	3.4	.0	.5	2.0	2.7	8.9
VAR	.0	.0	.0	.0	.0	.0		.0	.0		.0	.0	.0	.0	.0	.0	.0	.0
CALM	6.4							6.4	.0		5.6	.0	14.4	7.7	9.4	2.7	3.4	2.2
TOT OBS	207	463	81	1	0	0	752		5.9		124	62	139	26	106	75	175	45
TOT PCT	27.5	61.6	10.8	.1	.0	.0		100.0			100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)					TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)			
	0-6	7-16	17-27	28-40	41+				00	06	12	18
N	.9	.8	.0	.0	.0		1.7	6.5	2.3	1.4	.8	2.2
NE	3.7	2.4	.1	.0	.0		6.2	6.4	4.3	9.5	1.1	9.5
E	7.9	2.3	.0	.0	.0		10.3	5.1	12.6	3.5	13.4	10.8
SE	18.7	14.8	.3	.0	.0		33.8	6.5	34.5	31.5	39.1	30.6
S	13.4	10.0	.1	.0	.0		23.4	6.6	21.6	28.0	23.9	21.1
SW	6.9	2.9	.0	.0	.0		9.9	5.9	11.0	7.6	10.1	10.5
W	3.1	2.2	.0	.0	.0		5.3	6.3	6.0	2.3	3.9	8.2
NW	1.6	1.4	.0	.0	.0		3.0	6.7	3.8	2.9	1.1	4.0
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0
CALM	6.4						6.4	.0	3.8	13.3	6.6	3.2
TOT OBS	471	277	4	0	0	752		5.9	186	165	181	220
TOT PCT	62.6	36.8	.5	.0	.0		100.0		100.0	100.0	100.0	100.0

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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)				MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47	48+			
00003	3.8	23.1	63.4	9.1	.5	.0	.0	6.1	100.0	186
06009	13.3	13.9	63.6	9.1	.0	.0	.0	5.6	100.0	165
12015	6.6	22.1	62.4	8.8	.0	.0	.0	5.4	100.0	181
18021	3.2	24.1	57.7	15.0	.0	.0	.0	6.3	100.0	220
TOT	48	159	463	81	1	0	0	5.9		752
PCT	6.4	21.1	61.6	10.8	.1	.0	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	.3	.6	.5	.3		4.7
NE	2.3	.5	1.7	.8		3.8
E	4.2	1.1	1.3	1.0		2.3
SE	12.1	9.8	15.1	4.7		4.3
S	6.5	5.2	7.5	3.4		4.5
SW	1.5	1.3	2.1	1.0		4.7
W	1.5	1.0	1.7	1.0		4.5
NW	.0	.9	1.5	.5		5.5
VAR	.0	.0	.0	.0		.0
CALM	3.2	1.1	1.3	1.3		3.5
TOT OBS	119	81	124	53	377	4.2
TOT PCT	31.6	21.5	32.9	14.1	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8)
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

000	150	300	600	1000	2000	3500	5000	6500	8000+	NH <5/8 ANY HGT	TOTAL OBS
149	299	599	999	1999	3499	4999	6499	7999			
.0	.0	.0	.3	.3	.0	.1	.0	.0	.0	1.0	
.0	.0	.0	.5	.8	.0	.1	.0	.0	.0	3.9	
.0	.0	.0	.2	.3	.5	.3	.0	.0	.0	8.4	
.0	.0	.3	2.3	7.6	2.3	.6	.3	.0	.3	28.2	
.0	.0	.4	1.3	3.9	.9	1.3	.3	.0	.2	14.5	
.0	.0	.6	.3	1.3	.0	.0	.3	.1	3.3		
.0	.3	.0	.2	.7	.5	.0	.0	.0	.0	3.5	
.0	.0	.0	.8	.3	.3	.0	.0	.0	.0	1.6	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
.0	.0	.3	.3	1.3	.0	.0	.0	.0	.3	4.8	
.0	1	6	23	62	17	9	2	1	3	253	377
.0	.3	1.6	6.1	16.4	4.5	2.4	.5	.3	.8	67.1	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE
OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)							
	= OR >10	= OR >5	= OR >2	= OR >1	= OR >1/2	= OR >1/4	= OR >50YD	= OR >0
= OR >6500	.9	.9	.9	.9	.9	.9	.9	.9
= OR >5000	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
= OR >3500	3.3	3.5	3.5	3.5	3.5	3.5	3.5	3.5
= OR >2000	7.5	7.7	7.9	7.9	7.9	7.9	7.9	7.9
= OR >1000	23.0	25.6	25.8	25.8	25.8	25.8	25.8	25.8
= OR >600	28.0	31.6	31.8	31.8	31.8	31.8	31.8	31.8
= OR >300	28.7	32.9	33.1	33.1	33.1	33.1	33.1	33.1
= OR >150	28.7	33.1	33.3	33.3	33.3	33.3	33.3	33.3
= OR >0	28.7	33.1	33.3	33.3	33.3	33.3	33.3	33.3
TOTAL	130	150	151	151	151	151	151	151

TOTAL NUMBER OF OBS 453

PCT FREQ NH <5/8 66.7

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8 OBSCD	TOTAL OBS
6.8	20.9	19.6	10.0	9.2	6.2	9.8	7.0	10.4	469

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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.2	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.2	
1/2<1	PCP	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.2	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	
	TOT %	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.2	
1<2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
2<5	PCP	.0	.0	.0	.0	.2	.1	.1	.0	.0	.0	.3	
	NO PCP	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.2	
	TOT %	.0	.2	.0	.0	.2	.1	.1	.0	.0	.0	.5	
5<10	PCP	.2	.2	.2	.5	.9	.5	.4	.2	.0	.3	3.4	
	NO PCP	.0	1.1	1.6	4.7	3.2	2.9	.7	.5	.0	1.0	15.8	
	TOT %	.2	1.3	1.8	5.3	4.2	3.4	1.1	.6	.0	1.3	19.1	
10+	PCP	.1	.1	.1	.6	.2	.2	.0	.2	.0	.0	1.2	
	NO PCP	1.4	4.6	8.5	28.8	18.0	6.1	4.3	2.7	.0	4.4	78.7	
	TOT %	1.5	4.7	8.6	29.2	18.1	6.3	4.3	2.9	.0	4.4	79.9	
TOT OBS													596
TOT PCT		1.6	6.1	10.4	34.6	22.6	9.7	5.5	3.5	.0	5.9	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.2	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.2	
1/2<1	0-3	.0	.0	.0	.2	.0	.0	.0	.0	.0	.2	.3	
	4-10	.0	.0	.0	.1	.1	.0	.0	.0	.0	.0	.2	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.3	.1	.0	.0	.0	.0	.2	.5	
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
2<5	0-3	.0	.2	.0	.0	.2	.1	.1	.0	.0	.0	.5	
	4-10	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.2	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.2	.0	.2	.2	.1	.1	.0	.0	.0	.7	
5<10	0-3	.0	.3	1.2	1.7	.9	.8	.3	.3	.0	1.3	6.9	
	4-10	.2	.7	.6	2.8	2.9	2.3	.6	.2	.0		10.4	
	11-21	.0	.2	.0	.7	.3	.2	.3	.1	.0		1.7	
	22+	.0	.2	.0	.0	.0	.0	.0	.0	.0		.2	
	TOT %	.2	1.3	1.8	5.3	4.1	3.3	1.1	.6	.0	1.3	19.1	
10+	0-3	.6	1.4	2.9	5.5	3.3	.8	.8	.6	.0	4.3	20.2	
	4-10	.5	2.8	4.8	19.7	11.3	4.8	3.1	1.5	.0		48.5	
	11-21	.4	.5	.8	3.9	3.4	.7	.3	.8	.0		10.9	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0		.0	
	TOT %	1.5	4.6	8.6	29.1	18.1	6.2	4.3	2.9	.0	4.3	79.6	
TOT OBS													598
TOT PCT		1.6	6.1	10.3	34.8	22.6	9.7	5.5	3.5	.0	5.9	100.0	

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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NM >4/8) AND
OCCURRENCE OF NM <3/8 BY HOUR

HR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NM <3/8 ANY HGT	TOTAL OBS
00003	.0	.0	.8	3.2	22.2	2.4	1.6	.8	.0	.0	31.0	69.0	126
06009	.0	.0	.0	12.7	17.8	5.9	2.5	.8	.8	.0	40.7	59.3	118
12015	.0	.9	.9	5.2	20.0	5.2	1.7	.0	.0	1.7	35.7	64.3	115
18021	.0	.0	3.8	1.9	8.7	3.8	1.9	1.0	.0	1.0	22.1	77.9	104
TOT	0	1	6	27	81	20	9	3	1	3	151	312	463
PCT	.0	.2	1.3	5.8	17.5	4.3	1.9	.6	.2	.6	32.6	67.4	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.6	.6	.0	1.1	21.5	76.3	177
06009	.0	.7	.0	.7	16.1	82.6	149
12015	.0	1.2	.0	.0	15.1	83.7	172
18021	.0	.0	.0	1.5	18.9	79.6	196
TOT	1	4	0	6	125	558	694
PCT	.1	.6	.0	.9	18.0	80.4	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR
CEILING HGT (FEET, NM >4/8) BY HOUR

HR (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND5+	NM <3/8 AND 5+	TOTAL OBS
00003	.0	.8	4.9	27.9	67.2	122
06009	.0	.0	12.9	28.4	58.6	116
12015	.0	2.7	8.1	29.7	62.2	111
18021	.0	3.8	6.7	15.4	77.9	104
TOT	0	8	37	116	300	453
PCT	.0	1.8	8.2	25.6	66.2	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
85/89	.0	.0	.0	.0	.2	.8	1.0	3.7	35	5.6
80/84	.0	.0	.0	.2	1.8	13.7	12.3	5.8	211	33.7
75/79	.0	.0	.2	.0	.0	2.4	34.3	20.1	357	57.0
70/74	.0	.0	.0	.0	.0	.0	.5	3.2	23	3.7
TOTAL	0	0	1	1	12	106	301	205	626	100.0
PCT	.0	.0	.2	.2	1.9	16.9	48.1	32.7		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
85/89	.0	.2	1.1	1.8	1.0	.6	.3	.7	.0	.0
80/84	.9	3.0	5.2	10.5	6.4	2.3	1.9	1.6	.0	1.9
75/79	.8	2.9	3.5	21.7	13.7	6.0	3.1	1.3	.0	4.0
70/74	.2	.0	.4	1.1	1.4	.0	.3	.0	.0	.3
TOTAL	1.9	6.1	10.2	35.0	22.5	8.8	5.6	3.6	.0	6.2

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	86	85	84	79	75	73	71	79.2	212
06009	82	81	80	77	73	72	71	77.2	198
12015	89	85	84	78	74	72	70	78.1	206
18021	88	87	86	81	77	74	73	80.8	241
TOT	89	86	84	79	74	73	70	78.9	857

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	.6	2.2	15.1	54.2	27.9	85	179
06009	.0	.0	.0	5.1	56.1	38.9	88	137
12015	.0	.0	1.1	11.9	42.0	44.9	88	176
18021	.0	.5	6.2	34.9	40.7	17.7	82	209
TOT	0	2	19	129	344	227	85	721

FEBRUARY

PERIOD: (PRIMARY) 1942-1978
(OVER-ALL) 1912-1978

TABLE 17

AREA 0037 GALAPAGOS ISLANDS
.95 90.1WPCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	69 72	73 76	77 80	81 84	85 88	TOT	N FOG	NO FOG
14/16	.0	.0	.0	.2	.0	1	.0	.2
11/13	.0	.0	.0	.3	.0	2	.0	.3
9/10	.0	.0	.0	.3	.3	4	.0	.7
7/8	.0	.0	.2	.3	.7	7	.0	1.2
6	.0	.0	.0	.3	.0	2	.0	.3
5	.0	.3	.5	2.0	.2	18	.2	2.9
4	.0	.0	1.3	2.4	.0	22	.2	3.5
3	.0	.2	1.2	2.4	.3	24	.0	4.0
2	.0	.8	3.4	2.4	.0	39	.0	6.6
1	.2	2.7	8.9	2.7	.0	86	.3	14.1
0	.2	5.2	15.0	3.0	.0	139	1.0	22.4
-1	.0	4.0	13.8	1.5	.0	115	.2	19.2
-2	.0	3.7	7.1	1.0	.0	70	.5	11.3
-3	.0	1.9	3.2	.5	.0	33	.2	5.4
-4	.2	1.2	1.7	.0	.0	18	.0	3.0
-5	.0	.5	1.0	.2	.0	10	.0	1.7
-7/-8	.0	.5	.0	.0	.0	3	.0	.5
-9/-10	.0	.2	.0	.0	.0	1	.0	.2
TOTAL	3	126	116	9	594	15	579	
PCT	.5	21.2	57.2	19.5	1.5	100.0	2.5	97.5

PERIOD: (OVER-ALL) 1963-1978

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	N						PCT	NE						PCT
	1-3	4-10	11-21	22-33	34-47	48+		1-3	4-10	11-21	22-33	34-47	48+	
<1	.0	.4	.9	.0	.0	.0	1.3	.7	.7	.1	.0	.0	.0	1.6
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.9	.0	.0	.0	.0	.9
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.4	.0	.0	.0	.0	.4
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.4	.0	.0	.0	.4
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.4	.9	.0	.0	.0	1.3	.7	2.0	.5	.0	.0	.0	3.2

HGT	E						PCT	SE						PCT
	1-3	4-10	11-21	22-33	34-47	48+		1-3	4-10	11-21	22-33	34-47	48+	
<1	1.6	.5	.0	.0	.0	.0	2.2	1.3	5.7	5.3	.0	.0	.0	12.3
1-2	.3	3.7	.4	.0	.0	.0	4.4	3.4	18.8	2.1	.0	.0	.0	24.3
3-4	.0	.0	.3	.0	.0	.0	.3	.0	3.7	.5	.0	.0	.0	6.1
5-6	.0	.0	.0	.0	.0	.0	.0	.0	1.8	.4	.0	.0	.0	2.2
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.9	4.3	.6	.0	.0	.0	6.8	4.7	32.0	8.2	.0	.0	.0	44.9

PERIOD: (OVER-ALL) 1963-1978

FEBRUARY

AREA 0037 GALAPAGOS ISLANDS
95 90.1W

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.7	3.5	3.1	.0	.0	.0	7.3	.0	3.1	.0	.0	.0	.0	3.1
1-2	1.4	9.0	1.4	.0	.0	.0	12.0	.1	2.1	.4	.0	.0	.0	2.6
3-4	.0	2.3	1.1	.0	.0	.0	3.4	.0	.2	.0	.0	.0	.0	.2
5-6	.0	.0	.4	.0	.0	.0	.4	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	2.1	14.8	6.1	.0	.0	.0	23.0	.1	5.4	.4	.0	.0	.0	5.8

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.7	1.6	.0	.0	.0	.0	2.4	.4	.5	1.2	.0	.0	.0	2.0	
1-2	.0	1.6	.4	.0	.0	.0	1.9	.4	.7	.0	.0	.0	.0	1.1	
3-4	.0	1.0	.0	.0	.0	.0	1.0	.0	.4	.0	.0	.0	.0	.4	
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.7	4.2	.4	.0	.0	.0	5.3	.7	1.6	1.2	.0	.0	.0	3.5	93.8

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	15.3	15.6	9.6	.0	.0	.0	40.5	
1-2	8.0	33.9	4.3	.0	.0	.0	46.2	
3-4	.0	9.0	1.7	.0	.0	.0	10.6	
5-6	.0	1.7	1.0	.0	.0	.0	2.7	
7	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	23.3	60.1	16.6	.0	.0	.0	100.0	301

PERIOD: (OVER-ALL) 1949-1978

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	4.3	15.9	14.8	3.8	1.1	.3	.0	.0	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	151	3
6-7	.0	4.9	8.9	4.0	2.2	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	76	4
8-9	.0	.8	2.4	3.0	1.1	.5	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	31	5
10-11	.0	.5	.8	.8	.8	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	12	5
12-13	.0	.0	1.1	1.1	.8	.5	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	15	6
>13	.0	.0	.0	.5	.3	.0	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	5	7
INDET	16.4	2.2	2.4	.5	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	81	1
TOTAL	77	90	113	51	24	7	7	0	2	0	0	0	0	0	0	0	0	0	0	371	3
PCT	20.8	24.3	30.5	13.7	6.5	1.9	1.9	.0	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	

PERIOD: (PRIMARY) 1942-1977
(OVER-ALL) 1885-1977

MARCH

AREA 0037 GALAPAGOS ISLANDS
.85 90.2W

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

PRECIPITATION TYPE										OTHER WEATHER PHENOMENA					
WND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST BLWG SNOW	ND SIG WEA
N	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
NE	2.6	.0	1.3	.0	.0	.0	.0	4.0	.0	.0	4.0	.0	2.6	.0	89.4
E	.0	.0	.0	.0	.0	.0	.0	.0	1.4	.3	4.7	.0	2.8	.0	90.8
SE	1.5	.0	.0	.0	.0	.0	.0	1.5	1.8	1.4	1.4	.0	2.5	.0	91.3
S	3.2	1.4	.0	.0	.0	.0	.0	4.7	1.1	.0	2.5	.0	5.0	.0	86.7
SW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.8	.0	2.8	.0	94.4
W	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
NW	.0	.0	.0	.0	.0	.0	.0	.0	4.9	.0	.0	.0	.0	.0	95.1
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	1.4	.0	.0	.0	.0	1.4	1.4	.0	1.4	.0	2.8	.0	93.0
TOT PCT	1.1	.2	.3	.0	.0	.0	.0	1.6	1.3	.5	2.6	.0	2.7	.0	91.4
TOT OBS:	626														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST BLWG SNOW	ND SIG WEA
00003	1.0	1.0	.0	.0	.0	.0	.0	1.9	.5	.0	1.0	.0	2.4	.0	94.2
06009	.9	.0	.0	.0	.0	.0	.0	.9	.9	1.8	5.3	.0	1.8	.0	89.5
12015	1.1	.0	1.1	.0	.0	.0	.0	2.2	2.2	1.1	1.1	.0	2.2	.0	91.3
18021	1.1	.0	.0	.0	.0	.0	.0	1.1	1.6	.0	4.2	.0	4.8	.0	88.4
TOT PCT	1.0	.3	.3	.0	.0	.0	.0	1.6	1.3	.6	2.6	.0	2.9	.0	91.0
TOT OBS:	692														

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	0-3	WIND SPEED (KNOTS)					48+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)							
		4-10	11-21	22-33	34-47	00					03	06	09	12	15	18	21	
N	.8	.5	.1	.0	.0	.0		1.5	4.4		.4	.0	2.6	.0	4.1	.0	1.0	.0
NE	3.4	8.1	1.0	.0	.0	.0		12.5	5.4		13.5	9.8	11.7	14.3	10.7	5.7	14.0	26.0
E	4.7	17.5	1.1	.0	.0	.0		23.3	5.5		22.8	35.8	16.6	10.7	19.9	16.0	28.6	28.8
SE	5.9	20.4	.8	.0	.0	.0		27.1	5.7		28.1	34.8	27.1	25.0	25.6	44.8	22.8	10.6
S	4.4	5.9	.5	.0	.0	.0		10.8	4.6		7.9	13.2	7.0	7.1	11.8	24.1	11.6	3.8
SW	2.2	3.7	.4	.0	.0	.0		6.3	4.7		9.5	.5	4.9	14.3	5.5	2.4	6.7	7.7
W	1.6	1.7	.1	.0	.0	.0		3.4	4.5		3.2	2.0	1.9	14.3	2.8	6.1	3.2	5.8
NW	.5	1.8	.5	.0	.0	.0		2.9	6.8		6.4	.0	1.2	.0	2.3	.9	1.7	9.6
VAR	.0	.0	.0	.0	.0	.0		.0	.0		.0	.0	.0	.0	.0	.0	.0	.0
CALM	12.3							12.3	.0		8.2	3.9	27.1	14.3	17.3	.0	10.3	7.7
TOT OBS	268	447	34	0	0	0	749		4.7		171	51	107	14	133	53	194	26
TOT PCT	35.8	59.7	4.5	.0	.0	.0		100.0			100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	0-6	WIND SPEED (KNOTS)				41+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)			
		7-16	17-27	28-40	00 03					06 09	12 15	18 21	
N	1.1	.4	.0	.0	.0		1.5	4.4	.3	2.3	3.0	.9	
NE	9.3	3.2	.0	.0	.0		12.5	5.4	12.6	12.0	9.3	15.5	
E	17.1	6.2	.0	.0	.0		23.3	5.5	25.8	15.9	18.8	28.6	
SE	18.3	8.6	.1	.0	.0		27.1	5.7	29.6	26.9	31.0	21.4	
S	8.4	2.4	.0	.0	.0		10.8	4.6	9.1	7.0	15.3	10.7	
SW	5.2	1.1	.0	.0	.0		6.3	4.7	7.4	6.0	4.6	6.8	
W	2.7	.7	.0	.0	.0		3.4	4.5	2.9	3.3	3.8	3.5	
NW	1.6	1.3	.0	.0	.0		2.9	6.8	5.0	1.0	1.9	2.6	
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	
CALM	12.3						12.3	.0	7.2	25.6	12.4	10.0	
TOT OBS	569	179	1	0	0	749		4.7	222	121	186	220	
TOT PCT	76.0	23.9	.1	.0	.0		100.0		100.0	100.0	100.0	100.0	

PERIOD: (PRIMARY) 1942-1977
(OVER-ALL) 1885-1977

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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)			48+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47				
00003	7.2	18.9	70.3	3.6	.0	.0	.0	5.2	100.0	222
06009	23.6	20.7	52.1	1.7	.0	.0	.0	3.6	100.0	121
12015	12.4	32.8	50.5	4.3	.0	.0	.0	4.2	100.0	186
18021	10.0	21.8	60.9	7.3	.0	.0	.0	5.3	100.0	220
TOT	92	176	447	34	0	0	0	4.7		749
PCT	12.3	23.5	59.7	4.5	.0	.0	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & DBSCD	TOTAL OBS	MEAN CLOUD COVER
N	.8	.5	1.0	.0		3.7
NE	8.0	1.9	2.6	.8		2.8
E	11.0	6.7	3.7	2.0		3.1
SE	9.8	8.7	7.0	1.3		3.5
S	3.9	2.8	1.8	1.5		2.6
SW	2.0	.7	1.7	.3		3.8
W	.0	.8	.8	.3		5.0
NW	.3	.6	.6	.0		4.5
VAR	.0	.0	.0	.0		.0
CALM	5.6	4.7	4.2	1.4		3.7
TOT OBS	148	98	84	28	358	3.4
TOT PCT	41.3	27.4	23.5	7.8	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8)
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

	000	150	300	600	1000	2000	3500	5000	6500	8000+	NH <5/8 ANY HGT	TOTAL OBS
	149	299	599	999	1999	3499	4999	6499	7999			
N	.0	.0	.3	.0	.3	.0	.0	.0	.0	.0	1.8	
NE	.0	.0	.1	.6	.6	.2	.0	.0	.0	.0	.3	11.5
E	.0	.0	.5	.6	1.0	.3	.3	.0	.0	.0	.0	20.7
SE	.0	.0	.0	.1	2.7	.6	.3	.1	.3	.1	.3	22.8
S	.0	.0	.0	.5	.7	.3	.3	.1	.0	.2	.7	7.9
SW	.0	.0	.0	.3	.0	.3	.0	.0	.0	.0	.0	4.1
W	.0	.0	.0	.0	.0	.0	.3	.0	.0	.0	.0	1.5
NW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.7
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.3	.3	.0	.8	.6	.8	.3	.3	.0	.3	12.3	
TOT OBS	1	1	3	10	21	9	5	2	1	3	302	358
TOT PCT	.3	.3	.8	2.8	5.9	2.5	1.4	.6	.3	.8	84.4	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE
OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	OR			VSBY (NM)			OR		
	>10	>5	>2	>1	>1/2	>1/4	>50YD	>0	>0
OR >6500	.7	.7	.7	.7	1.0	1.0	1.0	1.0	1.0
OR >5000	1.2	1.2	1.2	1.2	1.5	1.5	1.5	1.5	1.5
OR >3500	2.5	2.5	2.3	2.5	2.7	2.7	2.7	2.7	2.7
OR >2000	4.7	4.9	4.9	4.9	5.2	5.2	5.2	5.2	5.2
OR >1000	9.1	10.6	10.6	10.6	10.8	10.8	10.8	10.8	10.8
OR >600	10.3	12.0	12.0	12.0	13.3	13.3	13.3	13.3	13.3
OR >300	11.1	14.0	14.0	14.0	14.3	14.3	14.3	14.3	14.3
OR >150	11.3	14.3	14.3	14.3	14.5	14.5	14.5	14.5	14.5
OR >0	11.3	14.3	14.3	14.3	14.5	14.5	14.7	14.7	14.7
TOTAL	46	58	58	58	59	59	60	60	60

TOTAL NUMBER OF OBSI 407

PCT FREQ NH <5/8 85.3

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

	0	1	2	3	4	5	6	7	8 DBSCD	TOTAL OBS
	17.9	18.6	21.0	15.0	11.2	5.6	4.0	2.9	3.6	447

PERIOD: (PRIMARY) 1942=1977
(OVER-ALL) 1885=1977

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.85 90.2W

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.2	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.2	.0
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.2	.0
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.2	.0
1<2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2<5	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.1	*	.0	.0	.0	.0	.0	.2	.3	.0
	TOT %	.0	.0	.1	*	.0	.0	.0	.0	.0	.2	.3	.0
5<10	PCP	.0	.3	.0	.1	.2	.0	.0	.0	.0	.0	.6	.0
	NO PCP	.1	1.2	3.0	3.6	2.1	1.0	.2	.0	.0	1.8	13.0	.0
	TOT %	.1	1.6	3.0	3.7	2.3	1.0	.2	.0	.0	1.8	13.6	.0
10+	PCP	.0	.2	.0	.4	.3	.0	.0	.0	.0	.0	.8	.0
	NO PCP	1.3	10.4	19.9	24.4	8.6	4.8	3.3	3.1	.0	9.1	84.9	.0
	TOT %	1.3	10.5	19.9	24.8	8.9	4.8	3.3	3.1	.0	9.1	85.7	.0
TOT OBS													
TOT PCT													
		1.4	12.1	23.0	28.5	11.2	5.8	3.5	3.1	.0	11.4	100.0	624

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.2	.0
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.2	.0
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.2	.0
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.2	.0
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2<5	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.2	.0
	4-10	.0	.0	.1	*	.0	.0	.0	.0	.0	.0	.0	.0
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.1	*	.0	.0	.0	.0	.0	.2	.2	.0
5<10	0-3	.0	.2	.8	.7	1.1	.5	.2	.0	.0	1.8	5.1	.0
	4-10	.0	1.2	2.1	2.8	1.1	.3	.0	.0	.0	.0	7.5	.0
	11-21	.1	.2	.2	.2	.2	.2	.0	.0	.0	.0	1.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.1	1.6	3.0	3.7	2.3	1.0	.2	.0	.0	1.8	13.6	.0
10+	0-3	.8	2.8	4.1	6.1	3.5	1.5	1.3	.6	.0	9.1	30.0	.0
	4-10	.6	7.0	14.6	18.1	4.8	3.0	1.8	1.8	.0	.0	51.8	.0
	11-21	.0	.7	1.0	.7	.4	.3	.2	.6	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	1.5	10.5	19.8	25.0	8.8	4.8	3.3	3.1	.0	9.1	85.8	.0
TOT OBS													
TOT PCT													
		1.6	12.0	22.9	28.7	11.1	5.7	3.3	3.1	.0	11.3	100.0	627

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PERIOD: (PRIMARY) 1942-1977
(OVER-ALL) 1885-1977AREA 0037 GALAPAGOS ISLANDS
.85 90.2M

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET) NH $\geq 4/8$ AND
OCCURRENCE OF NH $< 3/8$ BY HOUR

HR	000	150	300	600	1000	2000	3500	5000	6500	8000+	TOTAL	NH $< 5/8$ ANY HGT	TOTAL OBS
(GMT)	149	299	599	999	1999	3499	4999	6499	7999				
00003	.0	.0	.0	.8	5.3	2.3	.0	1.5	.0	.0	9.8	90.2	132
06009	.0	1.1	1.1	2.3	3.4	3.4	1.1	.0	.0	2.3	14.8	95.2	88
12015	.9	.0	1.9	2.8	7.4	1.9	1.9	.0	.0	.9	17.6	82.4	108
18021	.0	.0	.9	3.8	4.7	1.9	1.9	.0	.9	.0	14.2	85.8	106
TOT	1	1	4	10	23	10	5	2	1	3	60	374	434
PCT	.2	.2	.9	2.3	5.3	2.3	1.2	.5	.2	.7	13.8	86.2	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HR	$< 1/2$	$1/2 < 1$	$1 < 2$	$2 < 5$	$5 < 10$	$10+$	TOTAL
(GMT)							OBS
00003	.0	.0	.0	1.0	10.7	88.3	206
06009	.0	.0	.0	.0	19.3	80.7	114
12015	.5	.5	.0	.5	13.1	85.2	183
18021	.0	.0	.0	.5	17.4	82.1	190
TOT	1	1	0	4	101	586	693
PCT	.1	.1	.0	.6	14.6	84.6	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR
CEILING HGT (FEET) NH $\geq 4/8$ BY HOUR

HR	< 150 $< 50YD$	< 600 < 1	< 1000 < 2	$1000+$ AND 5+	NH $< 5/8$ AND 5+	TOTAL
(GMT)						OBS
00003	.0	.0	2.5	10.0	87.5	120
06009	.0	2.4	4.7	10.6	84.7	85
12015	.0	4.0	8.1	12.1	79.8	99
18021	.0	1.0	5.8	9.7	84.5	103
TOT	1	7	21	43	343	407
PCT	.2	1.7	5.2	10.6	84.3	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL	PCT
									OBS	FREQ
90/94	.0	.0	.0	.0	.3	.0	.0	.0	2	.3
85/89	.0	.0	.0	.0	1.0	2.8	.8	1.2	35	5.8
80/84	.0	.0	.0	.0	1.3	12.7	21.2	6.8	252	42.1
75/79	.0	.0	.0	.0	.0	2.8	23.9	21.2	287	47.9
70/74	.0	.0	.0	.0	.0	.0	.7	3.2	23	3.8
TOTAL	0	0	0	0	16	110	279	194	599	100.0
PCT	.0	.0	.0	.0	2.7	18.4	46.6	32.4		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
0.0	.0	.0	.2	.2	.0	.0	.0	.0	.0
.0	.3	1.0	1.7	2.0	.1	.2	.0	.0	.7
.2	5.1	11.4	10.6	4.1	3.1	.8	1.3	.0	5.5
1.3	5.9	10.6	14.7	4.8	2.5	1.5	.6	.0	6.0
.0	.6	.9	.5	.6	.2	.2	.0	.0	1.0
1.4	11.9	23.9	27.5	11.6	5.9	2.6	1.9	.0	13.2

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HR	MAX	99%	95%	90%	5%	1%	MIN	MEAN	TOTAL
(GMT)									OBS
00003	88	87	84	79	75	71	69	79.3	237
06009	83	82	81	79	74	73	73	78.1	144
12015	84	82	81	78	73	70	70	77.7	203
18021	90	89	86	82	77	73	72	81.7	240
TOT	90	87	85	79	74	73	69	79.4	824

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HR	0-29	30-39	60-69	70-79	80-89	90-100	MEAN	TOTAL
(GMT)								OBS
00003	.0	.0	.6	18.5	46.1	34.8	87	178
06009	.0	.0	.0	9.4	52.3	38.3	88	128
12015	.0	.0	1.9	8.3	39.7	50.0	89	196
18021	.0	.5	7.1	33.5	42.9	16.0	81	212
TOT	0	1	19	129	302	223	86	674

PERIOD: (PRIMARY) 1942-1977
(OVER-ALL) 1885-1977

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.85 90.2M

TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	69 72	73 76	77 80	81 84	83 88	89 92	TOT	W FOG	WD FOG
14/16	.0	.0	.0	.2	.0	.0	1	.0	.2
11/13	.0	.2	.4	.4	.0	.0	5	.0	.9
9/10	.0	.0	.7	.5	.2	.2	9	.0	1.6
7/8	.0	.2	.7	1.1	.4	.4	15	.0	2.7
6	.0	.0	.5	.2	.2	.0	5	.0	.9
5	.0	.0	.4	.5	.4	.0	7	.0	1.3
4	.0	.4	1.8	1.8	.4	.0	24	.0	4.3
3	.2	.5	1.8	3.4	1.1	.0	39	.4	6.6
2	.2	.4	2.1	2.3	.7	.0	32	.2	5.5
1	.0	1.6	3.5	3.8	.2	.0	62	.5	10.5
0	.0	3.8	10.2	3.4	.2	.0	98	.9	16.6
-1	.2	4.3	13.9	1.8	.0	.0	113	.9	19.3
-2	.0	2.5	6.8	1.3	.0	.0	59	.2	10.4
-3	.2	2.0	4.5	.7	.0	.0	41	.0	7.3
-4	.0	.7	1.8	.5	.0	.0	17	.0	3.0
-5	.0	1.6	2.0	.2	.0	.0	21	.0	3.8
-6	.0	.7	.4	.0	.0	.0	6	.0	1.1
-7/-8	.2	.4	.4	.2	.0	.0	6	.0	1.1
TOTAL	5		301		20		560	17	543
PCT		107	124		3		100.0	3.0	97.0
	.9	19.1	53.8	22.1	3.6	.5			

PERIOD: (OVER-ALL) 1963-1977

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.5	.5	.0	.0	.0	.0	.9	3.0	.5	.0	.0	.0	.0	3.5
1-2	.3	.9	.3	.0	.0	.0	1.6	1.3	6.4	.1	.0	.0	.0	7.8
3-4	.0	.5	.0	.0	.0	.0	.5	.0	2.8	.0	.0	.0	.0	2.8
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.8	1.9	.3	.0	.0	.0	3.0	4.3	9.6	.1	.0	.0	.0	14.0

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	1.2	3.6	.0	.0	.0	.0	4.7	1.7	5.3	.0	.0	.0	.0	7.1
1-2	2.8	9.3	.5	.0	.0	.0	12.5	2.4	12.0	1.0	.0	.0	.0	15.5
3-4	.0	3.6	.9	.0	.0	.0	4.5	.0	3.5	.0	.0	.0	.0	3.5
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	3.9	16.4	1.4	.0	.0	.0	21.8	4.2	20.8	1.0	.0	.0	.0	26.0

PERIOD: (OVER-ALL) 1963-1977

MARCH

AREA 0037 GALAPAGOS ISLANDS
8S 90.2W

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	1.9	.8	.0	.0	.0	.0	2.7	1.0	.5	.0	.0	.0	.0	1.5
1-2	.5	3.2	.8	.0	.0	.0	4.5	1.4	1.0	.0	.0	.0	.0	2.4
3-4	.0	.8	.0	.0	.0	.0	.8	.0	.5	.0	.0	.0	.0	.5
5-6	.0	.3	.0	.0	.0	.0	.3	.0	.1	.5	.0	.0	.0	.6
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	2.3	5.2	.8	.0	.0	.0	8.3	2.4	2.1	.5	.0	.0	.0	5.0

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.5	.0	.0	.0	.0	.0	.5	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.9	.5	.0	.0	.0	.0	1.4	.1	.5	.0	.0	.0	.0	.6	.0
3-4	.0	.0	.0	.0	.0	.0	.0	.5	.5	.0	.0	.0	.0	.9	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.4	.5	.0	.0	.0	.0	1.9	.6	.9	.0	.0	.0	.0	1.5	81.5

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	31.7	10.2	.0	.0	.0	.0	41.9	
1-2	12.2	30.9	2.4	.0	.0	.0	45.5	
3-4	.4	10.6	.8	.0	.0	.0	11.8	
5-6	.0	.4	.4	.0	.0	.0	.8	
7	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	44.3	52.0	3.7	.0	.0	.0	100.0	246

PERIOD: (OVER-ALL) 1950-1977

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	4.0	19.1	9.2	4.9	2.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	146	3
6-7	.5	3.5	10.2	4.6	2.2	1.6	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	85	4
8-9	.0	1.1	7.0	2.4	1.9	.3	.8	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	51	5
10-11	.0	.3	1.3	1.6	.8	.3	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	18	5
12-13	.0	.0	1.3	.3	.8	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	9	5
>13	.0	.0	.0	.5	.5	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	5	7
INDEX	.94	1.9	3.0	.5	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	37	1
TOTAL	52	96	119	55	33	8	7	0	1	0	0	0	0	0	0	0	0	0	0	371	3
PCT	14.0	25.9	32.1	14.8	8.9	2.2	1.9	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	

PERIOD: (PRIMARY) 1942-1977
(OVER-ALL) 1886-1977

APRIL

AREA 0037 GALAPAGOS ISLANDS
.85 90.0W

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THOR LTNG	FOG NO PCPN	FOG NO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
N	9.1	.0	.0	.0	.0	.0	.0	9.1	.0	.0	.0	.0	12.1	.0	78.8
NE	.7	2.8	.0	.0	.0	.0	.0	3.5	.0	.0	9.8	2.8	2.8	.0	81.1
E	.7	.4	1.3	.0	.0	.0	.0	2.4	.7	.0	3.0	.0	6.7	.0	87.2
SE	.6	2.4	.5	.0	.0	.0	.0	3.5	1.6	.4	2.6	.4	1.6	.0	90.0
S	.5	2.0	.0	.0	.0	.0	.0	2.5	.0	.0	1.5	.0	2.8	.0	93.2
SW	.0	1.5	.0	.0	.0	.0	.0	1.5	5.9	.0	1.5	.0	.7	.0	90.4
W	.0	8.2	.0	.0	.0	.0	.0	8.2	.0	.0	.0	.0	8.2	.0	83.7
NW	4.9	.0	.0	.0	.0	.0	.0	4.9	.0	.0	.0	.0	.0	.0	95.1
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	2.8	.0	.0	.0	.0	.0	.0	2.8	.0	.0	11.1	.0	11.1	.0	75.0
TOT PCT	.9	1.7	.5	.0	.0	.0	.0	3.2	1.1	.2	3.2	.3	3.6	.0	88.5
TOT OBS:	633														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THOR LTNG	FOG NO PCPN	FOG NO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
00003	.7	.7	1.4	.0	.0	.0	.0	2.8	.7	.0	2.1	.0	5.5	.0	89.0
06009	1.1	2.2	.0	.0	.0	.0	.0	3.4	.0	1.1	9.0	.0	3.4	.0	83.1
12015	1.1	.5	.5	.0	.0	.0	.0	2.2	1.6	.0	4.8	.0	3.2	.0	88.2
18021	.8	3.8	.4	.0	.0	.0	.0	5.0	1.3	.0	1.3	.8	2.5	.0	89.1
TOT PCT	.9	2.0	.6	.0	.0	.0	.0	3.5	1.1	.2	3.5	.3	3.5	.0	88.0
TOT OBS:	659														

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	48+					00	03	06	09	12	15	18	21
N	.4	1.0	.0	.0	.0	.0		1.4	5.1		2.7	.0	.0	.0	2.9	.0	.7	3.6
NE	1.4	4.0	.1	.0	.0	.0		5.5	5.2		7.1	1.6	4.8	.0	7.4	5.6	6.0	4.0
E	4.5	15.5	1.9	.0	.0	.0		21.9	6.4		26.0	23.8	14.9	15.0	20.5	16.9	22.9	29.8
SE	6.9	27.0	4.5	.0	.0	.0		38.4	6.5		32.4	48.0	37.5	53.3	37.7	44.1	39.4	26.6
S	3.8	11.7	1.1	.0	.0	.0		16.6	5.9		13.0	21.0	19.6	15.0	13.3	28.1	13.1	17.7
SW	1.4	4.0	.1	.0	.0	.0		5.5	5.2		8.3	2.4	5.7	10.0	4.3	4.1	5.1	8.1
W	.2	1.3	.0	.1	.0	.0		1.7	7.1		1.7	1.6	2.1	.0	1.4	.0	2.8	.0
NW	1.3	1.7	.1	.0	.0	.0		3.1	5.2		1.0	1.6	1.2	.0	1.8	1.3	4.8	10.1
VAR	.0	.0	.0	.0	.0	.0		.0	.0		.0	.0	.0	.0	.0	.0	.0	.0
CALM	6.1	488	58	1	0	0		6.1	.0		7.8	.0	14.3	6.7	10.7	.0	5.2	.0
TOT OBS	192						739		5.8		102	62	84	15	122	80	212	62
TOT PCT	26.0	66.0	7.8	.1	.0	.0		100.0			100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)				41+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)				
	0-6	7-16	17-27	28-40					00 03	06 09	12 15	18 21	
N	.9	.4	.0	.0	.0		1.4	5.1	1.7	.0	1.7	1.4	
NE	4.2	1.3	.0	.0	.0		5.5	5.2	5.0	4.0	6.7	5.6	
E	12.3	9.5	.1	.0	.0		21.9	6.4	25.2	14.9	24.5		
SE	23.1	15.2	.1	.0	.0		38.4	6.5	38.3	39.9	40.2	36.5	
S	10.7	5.9	.0	.0	.0		16.6	5.9	16.0	18.9	19.2	14.1	
SW	4.3	1.2	.0	.0	.0		5.5	5.2	6.1	6.3	4.2	5.7	
W	1.0	.5	.1	.0	.0		1.7	7.1	1.7	1.8	.9	2.2	
NW	2.3	.8	.0	.0	.0		3.1	5.2	1.2	1.0	1.6	6.0	
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	
CALM	6.1						6.1	.0	4.9	13.1	6.4	4.0	
TOT OBS	480	257	2	0	0	739		5.8	164	99	202	274	
TOT PCT	65.0	34.8	.3	.0	.0		100.0		100.0	100.0	100.0	100.0	

PERIOD: (PRIMARY) 1942-1977
(OVER-ALL) 1886-1977

APRIL

AREA 0037 GALAPAGOS ISLANDS
.85 90.0W

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	11-21	22-33	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
00003	4.9	18.3	72.0	4.9	.0	.0	.0	5.9	100.0	164
06009	13.1	18.2	64.6	4.0	.0	.0	.0	5.1	100.0	99
12015	6.4	29.2	60.9	3.5	.0	.0	.0	4.7	100.0	202
18021	4.0	14.6	66.8	14.2	.4	.0	.0	6.7	100.0	274
TOT	45	147	488	58	1	0	0	5.8		739
PCT	6.1	19.9	66.0	7.8	.1	.0	.0		100.0	

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	.0	.0	.5	.5		6.8
NE	2.2	.7	1.9	1.5		4.6
E	7.3	4.2	5.4	3.2		3.9
SE	15.5	8.7	11.4	4.5		3.8
S	4.0	4.5	3.9	2.1		4.2
SW	1.5	2.4	2.2	.7		4.2
W	.0	.5	.8	.8		6.3
NW	.0	.3	.3	.4		6.4
VAR	.0	.0	.0	.0		.0
CALM	2.8	1.5	1.9	1.9		4.2
TOT OBS	108	74	92	50	324	4.1
TOT PCT	33.3	22.8	28.4	15.4	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8)
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH <5/8 ANY HGT	TOTAL OBS
N	.0	.0	.0	.0	.5	.2	.0	.0	.0	.0	.3	
NE	.5	.0	.0	.6	1.0	.4	.3	.0	.0	.0	3.5	
E	.4	.0	.0	1.5	2.0	1.5	.5	.0	.0	.0	14.0	
SE	.1	.0	.3	2.9	3.3	1.6	.2	.3	.3	.6	30.5	
S	.0	.2	.3	.2	2.4	.3	.6	.0	.0	.2	10.1	
SW	.0	.4	.0	.6	.7	.9	.0	.0	.0	.2	4.1	
W	.0	.0	.3	.3	.8	.0	.0	.0	.0	.2	.5	
NW	.0	.0	.0	.3	.1	.3	.0	.0	.0	.0	.3	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.3	.0	1.5	.6	.0	.0	.0	.0	.0	5.6	
TOT OBS	3	3	3	26	37	17	5	1	1	5	223	324
TOT PCT	.9	.9	.9	8.0	11.4	5.2	1.5	.3	.3	1.5	68.8	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE
OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	= OR >10	= OR >5	= OR >2	VSBY (NM) = OR >1	= OR >1/2	= OR >1/4	= OR >50YD	= OR >0
= OR >6500	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
= OR >5000	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
= OR >3500	3.3	3.6	3.6	3.6	3.6	3.6	3.6	3.6
= OR >2000	6.2	8.3	8.3	8.3	8.3	8.3	8.3	8.3
= OR >1000	14.2	18.7	19.3	19.6	19.9	19.9	19.9	19.9
= OR >600	18.7	25.5	27.3	27.6	27.9	27.9	27.9	27.9
= OR >300	19.3	26.1	28.2	28.5	28.8	28.8	28.8	28.8
= OR >150	19.6	27.0	29.1	29.4	29.7	29.7	29.7	29.7
= OR >0	19.6	27.3	29.4	29.7	30.0	30.3	30.6	30.6
TOTAL	66	92	99	100	101	102	103	103

TOTAL NUMBER OF OBS: 337

PCT FREQ NH <5/8: 69.4

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

	0	1	2	3	4	5	6	7	8	OBSCD	TOTAL OBS
	12.0	16.5	16.2	14.3	9.8	4.8	5.0	9.2	11.2	.8	357

PERIOD: (PRIMARY) 1942-1977
(OVER-ALL) 1886-1977

APRIL

AREA 0037 GALAPAGOS ISLANDS
.85 90.0W

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	.3
	TOT %	.0	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	.3
1/2<1	PCP	.1	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.1	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2
1<2	PCP	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2
	NO PCP	.0	.0	.0	.0	.1	.1	.0	.0	.0	.0	.0	.2
	TOT %	.0	.2	.0	.0	.1	.1	.0	.0	.0	.0	.0	.3
2<5	PCP	.0	.0	.0	.2	.0	.0	.0	.2	.0	.0	.0	.3
	NO PCP	.0	.3	.5	.2	.0	.0	.2	.0	.0	.0	.6	1.7
	TOT %	.0	.3	.5	.3	.0	.0	.2	.2	.0	.0	.6	2.1
5<10	PCP	.0	.0	.2	1.1	.4	.1	.0	.0	.0	.2	1.9	
	NO PCP	.1	1.1	3.5	0.0	1.9	1.1	.3	.0	.0	1.0	14.9	
	TOT %	.1	1.1	3.7	7.0	2.3	1.2	.3	.0	.0	1.1	16.8	
10+	PCP	.0	.0	.3	.2	.0	.0	.2	.0	.0	.0	.0	.6
	NO PCP	1.1	3.8	16.2	32.7	13.3	4.2	1.3	3.1	.0	4.0	79.7	
	TOT %	1.1	3.8	16.5	32.8	13.3	4.2	1.5	3.1	.0	4.0	80.3	
TOT OBS													630
TOT PCT		1.3	5.7	20.8	40.2	15.7	5.4	1.9	3.3	.0	5.7	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.2	
	4-10	.0	.1	.1	.0	.0	.0	.0	.0	.0	.0	.2	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.2	.1	.0	.0	.0	.0	.0	.0	.0	.3	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.1	*	.0	.0	.0	.0	.0	.0	.0	.0	.2	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.1	*	.0	.0	.0	.0	.0	.0	.0	.0	.2	
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.2	.0	.0	.1	.1	.0	.0	.0	.0	.3	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.2	.0	.0	.1	.1	.0	.0	.0	.0	.3	
2<5	0-3	.0	.0	.0	.2	.0	.0	.0	.2	.0	.6	.9	
	4-10	.0	.3	.5	.2	.0	.0	.2	.0	.0	.0	1.1	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.3	.5	.3	.0	.0	.2	.2	.0	.6	2.1	
5<10	0-3	.0	.3	.6	1.3	.3	.3	.2	.0	.0	1.1	4.1	
	4-10	.1	.8	2.7	5.6	1.9	.7	.2	.0	.0	.0	11.8	
	11-21	.0	.0	.4	.3	.1	.2	.0	.0	.0	.0	.9	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.1	1.1	3.7	7.1	2.3	1.1	.3	.0	.0	1.1	16.9	
10+	0-3	.3	.9	3.6	6.1	3.4	.9	.1	1.3	.0	3.9	20.9	
	4-10	.8	2.7	10.9	21.9	9.0	3.2	1.2	1.6	.0	.0	51.3	
	11-21	.0	.2	1.8	4.6	1.2	.0	.0	.2	.0	.0	7.9	
	22+	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.2	
	TOT %	1.1	3.8	16.5	32.7	13.6	4.1	1.5	3.1	.0	3.9	80.3	
TOT OBS													633
TOT PCT		1.3	5.6	20.7	40.1	16.0	5.4	1.9	3.2	.0	5.7	100.0	

APRIL

PERIOD: (PRIMARY) 1942-1977
(OVER-ALL) 1886-1977AREA 0037 GALAPAGOS ISLANDS
.85 90.0W

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NM >4/8) AND
OCCURRENCE OF NM <5/8 BY HOUR

HOURL (GMT)	000 149	150 299	300 399	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NM <5/8 ANY HGT	TOTAL OBS
00603	.0	.0	2.5	4.9	13.6	4.9	1.2	.0	.0	1.2	28.4	71.6	81
06609	1.5	.0	.0	4.5	7.3	3.0	.0	.0	1.5	1.5	19.4	80.6	67
12615	2.0	.0	.0	12.9	12.9	8.9	2.0	.0	.0	2.0	40.6	59.4	101
18621	.0	2.9	1.0	6.9	9.8	2.9	2.0	1.0	.0	1.0	27.5	72.5	102
TOT PCT	3 .9	3 .9	3 .9	27 7.7	39 11.1	18 5.1	5 1.4	1 .3	1 .3	5 1.4	105 29.9	246 70.1	351 100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOURL (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00603	.0	.7	.7	2.1	17.2	79.3	145
06609	1.1	.0	.0	2.2	30.0	66.7	90
12615	1.1	.0	.0	3.2	13.5	82.2	185
18621	.0	.0	.4	.8	17.6	81.1	238
TOT PCT	3 .3	1 .2	2 .3	13 2.0	119 18.1	520 79.0	658 100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR
CEILING HGT (FEET, NM >4/8) BY HOUR

HOURL (GMT)	<150 <50VD	<600 <1	<1000 <5	1000+ AND 5+	NM <5/8 AND 5+	TOTAL OBS
00603	.0	3.9	10.5	19.7	69.7	76
06609	1.6	1.6	6.3	12.7	81.0	63
12615	2.0	3.1	19.4	24.5	56.1	98
18621	.0	4.0	12.0	16.0	72.0	100
TOT PCT	3 .9	11 3.3	43 12.8	63 18.7	231 68.5	337 100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
85/89	.0	.0	.0	1.0	2.2	1.9	.6	1.0	42	6.7
80/84	.0	.0	.0	.2	3.3	13.5	16.4	4.9	241	38.3
75/79	.0	.0	.0	.0	.2	3.3	22.7	21.6	301	47.9
70/74	.0	.0	.0	.0	.0	.2	1.3	5.2	42	6.7
65/69	.0	.0	.0	.0	.0	.0	.0	.5	3	.5
TOTAL	0	0	0	7	36	119	258	209	629	100.0
PCT	.0	.0	.0	1.1	5.7	18.9	41.0	33.2		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.1	.0	1.3	2.8	1.1	.4	.3	.8	.0	.0
.2	2.3	8.3	16.0	6.3	2.0	.9	1.4	.0	.6
.4	2.1	9.7	19.5	7.8	3.1	.6	.5	.0	4.1
.2	1.0	1.3	2.1	1.4	.2	.0	.0	.0	.5
.0	.0	.2	.1	.0	.0	.0	.0	.0	.2
.9	5.4	21.0	40.4	16.6	5.8	1.8	2.7	.0	5.4

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOURL (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00603	84	83	83	79	74	69	68	78.5	175
06609	84	83	82	78	73	71	71	78.0	117
12615	87	86	83	78	72	69	68	77.6	210
18621	90	87	86	82	75	74	72	81.1	285
TOT	90	87	85	79	74	70	68	79.1	787

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOURL (GMT)	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00603	.0	.0	3.3	11.8	46.7	38.2	87	152		
06609	.0	.0	.0	3.9	44.7	51.5	109			
12615	.0	.6	2.2	12.8	40.6	43.9	180			
18621	.0	2.5	11.3	31.4	39.7	15.1	239			
TOT	0	7	36	120	285	226	86	674		

APRIL

PERIOD: (PRIMARY) 1942-1977
(OVER-ALL) 1886-1977

TABLE 17

AREA 0037 GALAPAGOS ISLANDS
.85 90.0W

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	65 68	69 72	73 76	77 80	81 84	85 88	89 92	TOT	N FOG	NO FOG
17/19	.0	.0	.0	.0	.0	.0	.2	1	.0	.2
14/16	.0	.0	.0	.2	.0	.0	.2	2	.0	.5
11/13	.0	.0	.2	.5	.2	.0	.0	4	.0	.9
9/10	.0	.0	.2	.2	.0	.0	.0	2	.0	.5
7/8	.0	.0	.2	.2	.9	.0	.0	6	.0	1.4
6	.0	.0	.0	.7	.7	.0	.0	6	.0	1.4
5	.0	.0	.2	.0	.0	.0	.0	1	.0	.2
4	.0	.2	.0	1.1	1.6	.2	.0	14	.2	3.0
3	.0	.2	.7	1.1	1.1	.2	.0	15	.0	3.4
2	.0	.2	2.1	1.8	2.5	.0	.0	29	.5	6.2
1	.0	.7	1.8	5.0	3.0	.5	.0	48	.2	10.7
0	.2	.7	4.6	12.8	3.6	.2	.0	97	.7	21.4
-1	.0	.7	4.1	10.7	2.1	.0	.0	77	1.6	15.9
-2	.0	.5	2.3	8.4	2.5	.0	.0	60	.7	13.0
-3	.0	.2	4.1	5.5	.7	.0	.0	46	.5	10.0
-4	.0	.0	.9	1.6	.5	.0	.0	13	.0	3.0
-5	.0	.2	.5	.9	.9	.0	.0	11	.2	2.3
-6	.0	.0	.5	.0	.0	.0	.0	2	.0	.5
-7/-8	.0	.2	.9	.0	.0	.0	.0	5	.2	.9
TOTAL	1	17	102	223	89	5	2	439	21	418
PCT	.2	3.9	23.2	50.8	20.3	1.1	.5	100.0	4.8	95.2

PERIOD: (OVER-ALL) 1963-1977

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.3	.7	.0	.0	.0	.0	1.0	.9	1.2	.0	.0	.0	.0	2.1
1-2	.0	.5	.0	.0	.0	.0	.5	.0	2.4	.0	.0	.0	.0	2.4
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.5	.5	.0	.0	.0	.9
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.3	1.2	.0	.0	.0	.0	1.5	.9	4.1	.5	.0	.0	.0	5.4

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.7	3.7	.0	.0	.0	.0	4.4	1.7	3.2	.0	.0	.0	.0	6.9
1-2	1.7	9.3	1.2	.0	.0	.0	12.2	2.9	16.7	.8	.0	.0	.0	20.4
3-4	.0	2.8	.3	.0	.0	.0	3.1	.0	6.9	1.6	.0	.0	.0	8.6
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.9	.5	.0	.0	.0	1.4
7	.0	.0	.0	.0	.0	.0	.0	.0	.5	.5	.0	.0	.0	.9
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	2.4	15.7	1.5	.0	.0	.0	19.7	4.6	30.2	3.4	.0	.0	.0	38.2

PERIOD: (OVER-ALL) 1963-1977

APRIL

AREA 0037 GALAPAGOS ISLANDS
.85 90.0W

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	S							PCT	SW							PCT	TOTAL PCT
	1-3	4-10	11-21	22-33	34-47	48+			1-3	4-10	11-21	22-33	34-47	48+			
<1	1.3	2.1	.0	.0	.0	.0		3.4	.5	1.5	.0	.0	.0	.0		2.0	
1-2	.8	4.5	1.3	.0	.0	.0		6.6	.1	2.1	.5	.0	.0	.0		2.7	
3-4	.0	4.1	.3	.0	.0	.0		4.4	.0	1.2	.0	.1	.0	.0		1.3	
5-6	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
7	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
8-9	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
10-11	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
12	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
13-16	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
17-19	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
20-22	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
23-25	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
26-32	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
33-40	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
41-48	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
49-60	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
61-70	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
71-86	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
87+	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
TOT PCT	2.1	10.6	1.6	.0	.0	.0		14.4	.6	4.7	.5	.1	.0	.0		5.9	

HGT	W							PCT	NW							PCT	TOTAL PCT
	1-3	4-10	11-21	22-33	34-47	48+			1-3	4-10	11-21	22-33	34-47	48+			
<1	.0	.0	.0	.0	.0	.0		.0	.6	.5	.0	.0	.0	.0		1.0	
1-2	.0	2.1	.0	.0	.0	.0		2.1	.0	.0	.0	.0	.0	.0		.0	
3-4	.0	.8	.0	.3	.0	.0		1.2	.0	.0	.0	.0	.0	.0		.0	
5-6	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
7	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
8-9	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
10-11	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
12	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
13-16	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
17-19	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
20-22	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
23-25	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
26-32	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
33-40	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
41-48	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
49-60	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
61-70	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
71-86	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
87+	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
TOT PCT	.0	2.9	.0	.3	.0	.0		3.2	.6	.5	.0	.0	.0	.0		1.0	89.4

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	16.8	15.0	.0	.0	.0	.0	31.9	
1-2	6.6	36.3	3.5	.0	.0	.0	46.5	
3-4	.0	15.9	2.7	.4	.0	.0	19.0	
5-6	.4	.9	.4	.0	.0	.0	1.8	
7	.0	.4	.4	.0	.0	.0	.9	
8-9	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	23.9	68.6	7.1	.4	.0	.0	100.0	226

PERIOD: (OVER-ALL) 1950-1977

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	4.4	17.4	17.4	4.4	4.4	.3	.0	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	143	3
6-7	.0	4.4	8.2	7.8	2.7	1.0	.3	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	73	4
8-9	.0	.7	2.7	3.8	1.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	27	5
10-11	.0	.7	.7	1.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	10	5
12-13	.0	.0	1.4	.7	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	7	4
>13	.0	.0	.0	.3	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2	6
INDET	4.4	.3	3.1	2.4	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	31	2
TOTAL	26	69	98	60	29	7	2	1	0	1	0	0	0	0	0	0	0	0	0	293	4
PCT	8.9	23.5	33.4	20.5	9.9	2.4	.7	.3	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	

PERIOD: (PRIMARY) 1942-1977
(OVER-ALL) 1876-1977

MAY

AREA 0037 GALAPAGOS ISLANDS
,95 90.0W

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

PRECIPITATION TYPE										OTHER WEATHER PHENOMENA					
WIND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FGD WD PCPN	FGD WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
N	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	23.5	11.8	.0	.0	84.7
E	.0	.9	.0	.0	.0	.0	.0	.9	.0	.0	4.6	.0	6.4	.0	88.1
SE	.4	1.2	.3	.0	.0	.0	.0	2.0	.3	.3	2.2	.0	2.1	.0	93.0
S	.5	.3	1.4	.0	.0	.0	.0	2.2	1.9	.3	3.8	.0	2.2	.0	89.5
SW	.0	9.8	3.9	.0	.0	.0	.0	13.7	1.0	2.0	2.0	.0	.0	.0	81.4
W	.0	.0	.0	.0	.0	.0	.0	.0	8.9	.0	.0	.0	.0	.0	91.1
NW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	4.3	8.7	8.7	4.3	.0	73.9
TOT PCT	.4	1.2	.7	.0	.0	.0	.0	2.3	.9	.5	3.3	.5	2.5	.0	90.0
TOT OBS:	569														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA								
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT 08 TIME	PCPN PAST HOUR	THDR LTNG	FGD WD PCPN	FGD WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
00603	.7	.7	.7	.0	.0	.0	.0	2.0	1.4	.7	3.4	1.4	4.7	.0		86.5
06009	.0	1.9	1.0	.0	.0	.0	.0	2.9	.0	1.9	4.8	.0	1.9	.0		88.6
12015	.7	1.3	1.3	.0	.0	.0	.0	3.3	1.3	.0	2.0	.7	.0	.0		92.7
18021	.0	1.6	.5	.0	.0	.0	.0	2.2	.5	.0	3.8	.0	3.8	.0		89.8
TOT PCT	.3	1.4	.8	.0	.0	.0	.0	2.5	.8	.5	3.4	.5	2.7	.0		89.5
TOT OBS:	589															

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							48+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)						
	0-3	4-10	11-21	22-33	34-47		00					03	06	09	12	15	18	21
N	.0	.2	.0	.0	.0	.0	.0	.2	6.5	.6	.0	.0	.0	.0	.0	.4	.0	
NE	.4	1.1	.0	.0	.0	.0	.0	1.5	4.6	1.0	1.9	1.4	.0	2.0	.0	1.0	6.9	
E	1.4	7.1	.8	.0	.0	.0	.0	9.3	6.8	12.3	9.3	10.1	7.1	5.6	7.7	10.3	5.2	
SE	6.0	39.5	5.5	.0	.0	.0	.0	51.1	7.0	57.8	59.3	44.0	26.8	55.6	50.0	49.5	40.5	
S	4.0	19.0	3.8	.0	.0	.0	.0	26.7	7.1	18.4	25.9	34.4	41.1	27.5	26.5	24.4	40.5	
SW	.9	3.0	.9	.0	.0	.0	.0	4.8	7.3	4.1	.0	5.5	17.9	1.3	9.7	6.3	3.4	
W	.7	.7	.3	.0	.0	.0	.0	1.6	5.9	1.4	.0	.0	.0	1.8	2.0	3.4	.0	
NW	.1	.8	.1	.0	.0	.0	.0	1.1	6.4	.2	3.7	.0	.0	.0	2.0	2.2	.0	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	3.7							3.7	.0	4.1	.0	4.6	7.1	6.3	2.0	2.6	3.4	
TOT OBS	117	488	78	0	0	0	683		6.7	122	34	109	14	112	49	194	29	
TOT PCT	17.1	71.4	11.4	.0	.0	.0			100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	

TABLE 3A

WIND DIR	0-6	WIND SPEED (KNOTS)				41+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)			
		7-16	17-27	28-40	00 03					06 09	12 15	18 21	
N	.1	.1	.0	.0	.0		.2	6.5	.4	.0	.0	.3	
NE	1.2	.2	.0	.0	.0		1.5	4.6	1.3	1.2	1.4	1.8	
E	4.9	4.2	.1	.0	.0		9.3	6.8	11.4	9.8	6.2	9.6	
SE	25.2	25.7	.2	.0	.0		51.1	7.0	58.2	42.1	53.9	48.3	
S	13.2	13.1	.4	.0	.0		26.7	7.1	20.7	35.2	27.2	26.5	
SW	2.1	2.7	.0	.0	.0		4.8	7.3	2.8	6.9	3.9	5.9	
W	1.1	.5	.0	.0	.0		1.6	5.9	1.0	.0	1.9	2.9	
NW	.8	.3	.0	.0	.0		1.1	6.4	1.3	.0	.6	1.9	
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	
CALM	3.7						3.7	.0	2.8	4.9	5.0	2.7	
TOT OBS	337	321	5	0	0	683		6.7	176	123	161	223	
TOT PCT	52.3	47.0	.7	.0	.0		100.0		100.0	100.0	100.0	100.0	

PERIOD: (PRIMARY) 1942-1977
(OVER-ALL) 1876-1977

MAY

AREA 0037 GALAPAGOS ISLANDS
.95 90.0W

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)				48+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47					
0000Z	2.8	8.5	77.8	10.8	.0	.0	.0	.0	7.0	100.0	176
0600Z	4.9	12.2	69.1	13.8	.0	.0	.0	.0	6.8	100.0	123
1200Z	5.0	16.1	73.9	5.0	.0	.0	.0	.0	5.9	100.0	161
1800Z	2.7	16.1	65.9	15.2	.0	.0	.0	.0	7.0	100.0	223
TOT	25	92	488	78	0	0	0	0	6.7		683
PCT	3.7	13.5	71.4	11.4	.0	.0	.0	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	.2	.0	.0	.0		2.0
NE	.3	.6	.3	.3		4.6
E	3.5	1.7	2.9	1.7		4.1
SE	14.7	12.1	17.0	8.6		4.4
S	8.0	4.8	8.9	4.7		4.4
SW	1.2	1.1	.3	.1		2.7
W	.6	.7	.3	.3		4.3
NW	.1	.0	.0	.0		2.0
VAR	.0	.0	.0	.0		.0
CALM	2.5	.8	1.4	.8		3.8
TOT OBS	112	79	112	58	361	4.3
TOT PCT	31.0	21.9	31.0	16.1	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8)
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH <5/8 ANY HGT	TOTAL OBS
N	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	
NE	.3	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	1.2
E	.0	.0	.3	1.2	1.2	.2	.6	.3	.0	.0	.0	5.9
SE	.0	.1	.0	6.9	6.0	4.7	1.1	.0	.3	.1	33.3	
S	.3	.2	.0	2.0	3.6	1.9	.3	.0	.0	.5	17.2	
SW	.0	.0	.0	.1	.2	.1	.0	.0	.0	.0	2.4	
W	.0	.0	.0	.0	.3	.0	.0	.0	.0	.0	1.5	
NW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.3	.3	.3	.8	.3	.0	.0	.0	.0	3.6	
TOT OBS	2	2	2	38	44	26	7	1	1	2	236	361
TOT PCT	.6	.6	.6	10.5	12.2	7.2	1.9	.3	.3	.6	65.4	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE
OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)							
	= OR >10	= OR >5	= OR >2	= OR >1	= OR >1/2	= OR >1/4	= OR >50YD	= OR >0
= OR >6500	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
= OR >5000	1.1	1.3	1.3	1.3	1.3	1.3	1.3	1.3
= OR >3500	2.1	2.9	3.2	3.2	3.2	3.2	3.2	3.2
= OR >2000	8.5	9.6	10.1	10.1	10.1	10.1	10.1	10.1
= OR >1000	19.7	21.3	21.8	21.8	21.8	21.8	22.1	22.1
= OR >600	28.7	31.9	32.4	32.4	32.4	32.4	32.7	32.7
= OR >300	29.0	32.4	33.0	33.0	33.0	33.0	33.2	33.2
= OR >150	29.0	32.7	33.2	33.2	33.5	33.5	33.8	33.8
= OR >0	29.0	32.7	33.2	33.2	33.5	33.8	34.3	34.3
TOTAL	109	123	125	125	126	127	129	129

TOTAL NUMBER OF OBS: 376

PCT FREQ NH <5/8: 65.7

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

	0	1	2	3	4	5	6	7	8 OBSCD	TOTAL OBS
	8.2	17.6	17.9	14.3	7.9	6.6	6.6	6.6	13.8	392

PERIOD: (PRIMARY) 1942-1977
(OVER-ALL) 1876-1977

MAY

AREA 0037 GALAPAGOS ISLANDS
.95 90.0W

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.2	.0	.0	.2	.0	.0	.0	.0	.4	.7	
	TOT %	.0	.2	.0	.0	.2	.0	.0	.0	.0	.4	.7	
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.4	.0	.0	.0	.0	.0	.2	.5	
	TOT %	.0	.0	.0	.4	.0	.0	.0	.0	.0	.2	.5	
1<2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.4	.3	.4	.0	.0	.0	.0	.0	1.1	
	TOT %	.0	.0	.4	.3	.4	.0	.0	.0	.0	.0	1.1	
2<5	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.5	.4	.0	.0	.0	.0	.0	.9	
	TOT %	.0	.0	.0	.5	.4	.0	.0	.0	.0	.0	.9	
5<10	PCP	.0	.0	.1	.5	.4	.3	.0	.0	.0	.0	1.2	
	NO PCP	.0	.7	1.6	8.0	4.8	.5	.2	.4	.0	.7	16.9	
	TOT %	.0	.7	1.7	8.5	5.2	.8	.2	.4	.0	.7	18.2	
10+	PCP	.0	.0	.0	.5	.2	.2	.0	.0	.0	.0	.9	
	NO PCP	.3	.6	7.6	41.3	19.1	3.4	1.8	1.0	.0	2.8	77.8	
	TOT %	.3	.6	7.6	41.8	19.3	3.5	1.8	1.0	.0	2.8	78.7	
TOT OBS													567
TOT PCT		.3	1.5	9.7	51.5	25.4	4.3	2.0	1.3	.0	4.1	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.4	.4	
	4-10	.0	.2	.0	.0	.2	.0	.0	.0	.0	.0	.4	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.2	.0	.0	.2	.0	.0	.0	.0	.4	.7	
1/2<1	0-3	.0	.0	.0	.2	.0	.0	.0	.0	.0	.2	.4	
	4-10	.0	.0	.0	.2	.2	.0	.0	.0	.0	.0	.4	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.4	.2	.0	.0	.0	.0	.2	.7	
1<2	0-3	.0	.0	.2	.0	.2	.0	.0	.0	.0	.0	.4	
	4-10	.0	.0	.1	.3	.4	.0	.0	.0	.0	.0	.7	
	11-21	.0	.0	.1	.1	.0	.0	.0	.0	.0	.0	.2	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.4	.4	.5	.0	.0	.0	.0	.0	1.2	
2<5	0-3	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.2	
	4-10	.0	.0	.0	.2	.2	.0	.0	.0	.0	.0	.4	
	11-21	.0	.0	.0	.4	.0	.0	.0	.0	.0	.0	.4	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.5	.4	.0	.0	.0	.0	.0	.9	
5<10	0-3	.0	.2	.1	1.1	.4	.0	.0	.0	.0	.7	2.5	
	4-10	.0	.6	1.6	7.1	4.5	.6	.2	.2	.0	.0	14.7	
	11-21	.0	.0	.6	.3	.2	.0	.2	.0	.0	.0	1.2	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.7	1.7	8.8	5.2	.8	.2	.4	.0	.7	18.4	
10+	0-3	.0	.2	1.2	5.3	3.0	1.1	.8	.2	.0	2.8	14.5	
	4-10	.3	.4	5.7	32.2	13.0	1.9	.7	.8	.0	.0	54.8	
	11-21	.0	.0	.7	4.1	3.2	.5	.3	.0	.0	.0	8.8	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.3	.6	7.6	41.5	19.1	3.5	1.8	1.0	.0	2.8	78.1	
TOT OBS													571
TOT PCT		.3	1.5	9.6	51.5	25.5	4.3	2.0	1.3	.0	4.0	100.0	

PERIOD: (PRIMARY) 1942-1977
(OVER-ALL) 1876-1977

MAY

AREA 0037 GALAPAGOS ISLANDS
.95 90.0M

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NH >4/8) AND
OCCURRENCE OF NH <3/8 BY HOUR

HR	000	150	300	600	1000	2000	3500	5000	6500	8000+	TOTAL	NH <3/8 ANY MGT	TOTAL OBS
(GMT)	149	299	599	999	1999	3499	4999	6499	7999				
00003	.0	.0	1.0	12.0	10.0	5.0	2.0	1.0	1.0	.0	32.0	68.0	100
06009	.0	.0	.0	6.3	11.3	5.0	1.3	.0	.0	2.5	26.3	73.8	80
12015	1.0	1.0	1.0	12.6	14.6	13.6	.0	.0	.0	1.0	44.7	55.3	103
18021	1.0	1.0	.0	9.6	10.6	2.9	3.8	.0	.0	.0	28.8	71.2	104
TOT	2	2	2	40	45	26	7	1	1	3	129	258	387
PCT	.5	.5	.5	10.3	11.6	6.7	1.8	.3	.3	.8	33.3	66.7	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NH) BY HOUR

HR	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL
(GMT)							OBS
00003	.0	1.3	2.0	.7	24.3	71.7	132
06009	1.0	.0	1.0	1.9	16.3	79.8	104
12015	1.3	.7	.0	1.3	10.7	86.0	150
18021	.5	.5	1.6	.0	21.6	75.7	185
TOT	4	4	7	5	110	461	591
PCT	.7	.7	1.2	.8	18.6	78.0	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NH) AND/OR
CEILING HGT (FEET, NH >4/8), BY HOUR

HR	<150	<600	<1000	1000+	NH <3/8	TOTAL
(GMT)	<50YD	<1	<5	AND 5+	AND 5+	OBS
00003	.0	1.0	14.6	18.8	66.7	96
06009	.0	1.3	10.1	20.3	69.6	79
12015	1.0	4.0	18.2	28.3	53.5	99
18021	1.0	2.0	11.8	17.6	70.6	102
TOT	2	8	52	80	244	376
PCT	.5	2.1	13.8	21.3	64.9	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL	PCT
									OBS	FREQ
85/89	.0	.0	.0	.0	.2	.0	.0	.3	3	.5
80/84	.0	.0	.0	.0	.7	4.8	5.7	3.2	86	14.3
75/79	.0	.0	.0	.0	.5	6.2	27.0	22.8	339	56.4
70/74	.0	.0	.0	.2	.0	.5	8.7	18.5	167	27.8
65/69	.0	.0	.0	.0	.0	.0	.0	1.0	6	1.0
TOTAL	0	0	0	1	8	69	248	275	601	100.0
PCT	.0	.0	.0	.2	1.3	11.5	41.3	45.8		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.0	.0	.0	.5	.0	.0	.0	.0	.0	.0
.0	.3	1.3	6.6	3.4	1.7	.6	.3	.0	.0
.1	.3	4.8	30.4	16.0	2.5	.6	.9	.0	.8
.1	.4	2.8	14.0	6.0	.7	.7	*	.0	3.0
.0	.2	.0	.5	.2	.0	.0	.0	.0	.2
.2	1.2	8.9	52.0	25.5	4.9	1.9	1.2	.0	4.0

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HR	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL
(GMT)									OBS
00003	82	81	80	76	72	70	70	76.0	179
06009	81	80	79	75	71	68	66	75.1	129
12015	86	83	81	75	70	68	66	75.6	169
18021	87	84	82	78	73	70	69	77.6	225
TOT	87	83	81	76	71	69	66	76.2	702

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	.0	.6	6.6	49.4	43.4	88	166
06009	.0	.9	.9	5.4	40.2	52.7	89	112
12015	.0	.0	.0	3.9	32.9	63.2	90	152
18021	.0	.0	3.1	24.0	42.7	30.2	85	192
TOT	0	1	8	69	259	285	88	622

MAY

PERIOD: (PRIMARY) 1942-1977
(OVER-ALL) 1876-1977

TABLE 17

AREA 0037 GALAPAGOS ISLANDS
.95 90.0WPCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	65 68	69 72	73 76	77 80	81 84	85 88	TOT	W FOG	WD FOG
11/13	.0	.0	.2	.0	.0	.0	1	.0	.2
9/10	.0	.0	.0	.2	.0	.0	1	.0	.2
7/8	.0	.0	.4	1.1	.2	.0	8	.0	1.8
6	.0	.0	.2	.0	.4	.0	3	.0	.7
5	.2	.0	1.3	.7	.2	.0	11	.0	2.5
4	.0	.0	.9	2.9	.2	.2	19	.0	4.2
3	.0	.4	1.6	2.2	.7	.0	22	.2	4.7
2	.0	.0	2.2	4.5	.7	.0	33	.4	6.9
1	.0	1.8	5.6	4.7	.7	.0	57	.7	12.1
0	.2	4.5	13.4	6.5	.4	.0	112	2.0	23.0
-1	.0	1.3	8.5	6.9	.7	.0	78	.7	16.7
-2	.2	1.3	4.2	5.4	.4	.0	52	.4	11.2
-3	.0	1.1	1.1	3.1	.0	.0	24	.0	5.4
-4	.0	.4	.7	1.3	.0	.0	11	.0	2.5
-5	.0	.2	.7	.4	.2	.0	7	.0	1.6
-6	.0	.0	.2	.2	.0	.0	2	.0	.4
-7/-8	.0	.0	1.3	.0	.0	.0	6	.0	1.3
-9/-10	.0	.0	.2	.0	.0	.0	1	.0	.2
TOTAL	3	50	192	22	1	448	100.0	4.5	95.5
PCT	.7	11.2	42.9	40.2	4.9	.2			

PERIOD: (OVER-ALL) 1963-1977

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
41	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.3	.0	.0	.0	.0	.3	.0	1.1	.0	.0	.0	.0	1.1

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
41	.4	1.9	.0	.0	.0	.0	2.3	2.3	4.8	.4	.0	.0	.0	7.6
1-2	.4	2.8	.0	.0	.0	.0	3.2	.9	26.3	2.3	.0	.0	.0	29.5
3-4	.0	3.1	.4	.0	.0	.0	3.5	.0	11.3	2.8	.0	.0	.0	14.1
5-6	.0	.4	.4	.0	.0	.0	.9	.0	2.3	.6	.0	.0	.0	2.9
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.4	.0	.0	.0	.4
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.9	8.1	.9	.0	.0	.0	9.9	3.2	44.8	6.3	.0	.0	.0	54.5

PERIOD: (OVER-ALL) 1963-1977

MAY

AREA 0037 GALAPAGOS ISLANDS
.95 90.0W

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	1.1	1.9	.0	.0	.0	.0	3.0	.1	.1	.0	.0	.0	.0	.2
1-2	.4	11.0	1.2	.0	.0	.0	12.7	.0	1.2	.4	.0	.0	.0	1.7
3-4	.4	4.4	.8	.0	.0	.0	5.6	.0	.2	.0	.0	.0	.0	.2
5-6	.0	.8	2.1	.0	.0	.0	2.9	.0	.4	.0	.0	.0	.0	.4
7	.0	.0	.4	.0	.0	.0	.4	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	2.0	18.1	4.5	.0	.0	.0	24.6	.1	2.0	.4	.0	.0	.0	2.5

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1	.0
3-4	.0	.8	.4	.0	.0	.0	1.2	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.8	.4	.0	.0	.0	1.2	.0	.1	.0	.0	.0	.0	.1	94.3

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	21.4	8.9	.4	.0	.0	.0	20.7	
1-2	3.4	40.5	3.8	.0	.0	.0	47.7	
3-4	.8	19.0	4.2	.0	.0	.0	24.1	
5-6	.0	3.8	3.0	.0	.0	.0	6.8	
7	.0	.0	.8	.0	.0	.0	.8	
8-9	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	19.6	72.2	12.2	.0	.0	.0	100.0	237

PERIOD: (OVER-ALL) 1949-1977

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	5.1	13.0	19.9	6.0	3.0	.9	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100	3
6-7	.0	1.8	10.5	8.4	4.5	1.5	.9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	92	3
8-9	.0	1.5	2.7	3.8	1.2	1.2	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	34	5
10-11	.0	1.5	.6	.9	2.4	.3	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	20	5
12-13	.0	.0	.9	.3	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	9	4
>13	.0	.0	.0	.3	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2	6
INDET	2.7	.3	1.5	1.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	19	2
TOTAL	26	60	120	68	39	13	6	0	0	0	0	0	0	0	0	0	0	0	0	332	4
PCT	7.8	18.1	36.1	20.5	11.7	3.9	1.8	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	

JUNE

PERIOD: (PRIMARY) 1942-1977
(OVER-ALL) 1867-1977AREA 0037 GALAPAGOS ISLANDS
.95 90.0W

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

PRECIPITATION TYPE															OTHER WEATHER PHENOMENA														
WND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA														
N	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0														
NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0														
E	.0	2.6	3.4	.0	.0	.0	.0	6.0	.0	6.8	.0	.0	.0	.0	87.2														
SE	.9	1.2	1.9	.0	.0	.0	.0	4.0	.6	.0	.4	.0	.0	.0	95.0														
S	.0	2.4	.9	.0	.0	.0	.0	3.4	2.1	.0	1.5	.0	.0	.0	93.0														
SW	.0	6.6	2.6	.0	.0	.0	.0	9.2	.0	.0	3.3	.0	.0	.0	85.5														
W	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0														
NW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0														
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0														
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0														
TOT PCT	.5	1.9	1.7	.0	.0	.0	.0	4.1	1.0	.5	1.0	.0	.0	.0	93.5														
TOT OBS:	415																												

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA								
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
00603	.9	1.8	.0	.0	.0	.0	.0	2.7	1.8	.0	.0	.0	.0	.0	.0	95.5
06609	.0	.0	4.7	.0	.0	.0	.0	4.7	.0	2.3	.0	.0	.0	.0	.0	93.0
12615	1.0	2.9	2.9	.0	.0	.0	.0	6.7	1.9	.0	1.9	.0	.0	.0	.0	89.5
18621	.0	2.4	.8	.0	.0	.0	.0	3.3	.0	.0	1.6	.0	.0	.0	.0	95.1
TOT PCT TOT OBS:	.5 426	1.9	1.9	.0	.0	.0	.0	4.2	.9	.5	.9	.0	.0	.0	.0	93.4

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	0-3	WIND SPEED (KNOTS)					48+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)							
		4-10	11-21	22-33	34-47						00	03	06	09	12	15	18	21
N	.0	.2	.0	.0	.0	.0	.0	.2	5.0	.0	.0	.0	.0	.0	.0	.0	.7	.0
NE	.4	.2	.0	.0	.0	.0	.0	.6	3.6	.0	.0	.0	.0	.0	.0	.0	.7	.0
E	1.1	5.1	.4	.0	.0	.0	.0	6.6	6.1	3.9	9.8	9.1	21.4	8.5	5.7	4.1	10.0	.0
SE	7.9	39.0	7.5	.2	.0	.0	.0	54.6	7.4	37.2	68.9	51.7	28.6	47.1	58.6	55.8	60.0	.0
S	2.8	23.7	6.3	.0	.0	.0	.0	32.8	8.2	24.8	18.2	32.1	33.7	38.3	32.9	32.0	30.0	.0
SW	.5	2.6	.8	.0	.0	.0	.0	3.9	8.3	3.1	.0	4.8	14.3	5.9	.0	4.5	.0	.0
W	.0	.2	.0	.0	.0	.0	.0	.2	6.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0
NW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	1.0	.0	.0	.0	.0	.0	.0	1.0	.0	.0	.0	2.3	.0	.0	.0	2.2	.0	.0
TOT OBS	68	391	74	1	0	0	0	494	7.5	97	33	88	7	85	35	139	10	.0
TOT PCT	13.8	71.1	15.0	.2	.0	.0	.0	100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	0-6	WIND SPEED (KNOTS)				41+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)			
		7-16	17-27	28-40						00	06	12	18
N	.2	.0	.0	.0	.0	.0	.2	5.0	.0	.0	.0	.0	.7
NE	.6	.0	.0	.0	.0	.0	.6	3.6	.0	.0	.0	.0	.7
E	4.7	1.7	.2	.0	.0	.0	6.6	6.1	3.4	10.0	7.7	4.5	.0
SE	23.9	29.9	.8	.0	.0	.0	54.6	7.4	30.2	50.0	50.4	56.0	.0
S	11.1	20.8	1.0	.0	.0	.0	32.8	8.2	30.6	32.4	36.9	31.9	.0
SW	1.6	2.3	.1	.0	.0	.0	3.9	8.3	2.3	5.5	4.2	4.2	.0
W	.2	.0	.0	.0	.0	.0	.2	6.0	.8	.0	.0	.0	.0
NW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	1.0	.0	.0	.0	.0	.0	1.0	.0	.0	2.1	.0	2.0	.0
TOT OBS	214	270	10	0	0	0	494	7.5	130	95	120	149	.0
TOT PCT	43.3	54.7	2.0	.0	.0	.0	100.0		100.0	100.0	100.0	100.0	.0

PERIOD: (PRIMARY) 1942-1977
(OVER-ALL) 1867-1977

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AREA 0037 GALAPAGOS ISLANDS
.95 90.0W

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	WIND SPEED (KNOTS)							MEAN	PCT FREQ	TOTAL OBS
		1-3	4-10	11-21	22-33	34-47	48+				
00603	.0	10.0	75.4	14.6	.0	.0	.0	7.3	100.0	130	
06609	2.1	10.5	73.7	12.6	1.1	.0	.0	7.6	100.0	95	
12615	.0	17.5	75.0	7.5	.0	.0	.0	7.3	100.0	120	
18621	2.0	12.8	62.4	22.8	.0	.0	.0	7.7	100.0	149	
TOT	5	63	381	76	1	0	0	7.5		494	
PCT	1.0	12.8	71.1	15.0	.2	.0	.0		100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	.0	.0	.0	.0	.0	.0
NE	.0	.0	.3	.0	.0	7.0
E	1.9	.6	1.7	1.9	4.9	4.9
SE	11.5	10.0	16.2	13.2	50.0	5.0
S	7.1	5.9	13.7	8.4	35.1	5.1
SW	.9	1.2	2.4	1.4	5.2	5.2
W	.0	.0	.3	.0	.0	6.0
NW	.0	.0	.0	.0	.0	.0
VAR	.0	.0	.0	.0	.0	.0
CALM	.3	.3	.3	.3	5.0	5.0
TOT OBS	64	53	103	74	294	5.1
TOT PCT	21.8	18.0	35.0	25.2	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8)
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH <5/8 ANY HGT	TOTAL OBS
N	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
NE	.0	.0	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0
E	.0	.0	.0	.7	1.1	1.4	.2	.0	.0	.0	.0	2.7
SE	.0	.0	.5	6.2	10.4	6.3	.9	.2	.3	.3	.3	25.8
S	.0	.0	.8	1.9	5.8	4.8	1.5	.2	.0	.0	.0	20.2
SW	.0	.0	.1	.1	1.1	.4	.4	.0	.0	.0	.0	3.7
W	.0	.0	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0
NW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.7	.0	.0	.0	.0	.0	.0	.7
TOT OBS	0	0	4	26	58	38	9	1	1	1	156	294
TOT PCT	.0	.0	1.4	8.8	19.7	12.9	3.1	.3	.3	.3	53.1	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE
OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)							
	= OR >10	= OR >5	= OR >2	= OR >1	= OR >1/2	= OR >1/4	= OR >30YD	= OR >0
= OR >6500	.7	.7	.7	.7	.7	.7	.7	.7
= OR >5000	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
= OR >3500	3.9	4.3	4.3	4.3	4.3	4.3	4.3	4.3
= OR >2000	15.7	17.0	17.0	17.0	17.0	17.0	17.0	17.0
= OR >1000	31.1	36.7	37.0	37.0	37.0	37.0	37.0	37.0
= OR >600	38.4	45.6	45.9	45.9	45.9	45.9	45.9	45.9
= OR >300	39.3	46.9	47.5	47.5	47.5	47.5	47.5	47.5
= OR >150	39.3	46.9	47.5	47.5	47.5	47.5	47.5	47.5
= OR >0	39.3	46.9	47.5	47.5	47.5	47.5	47.5	47.5
TOTAL	120	143	145	145	145	145	145	145

TOTAL NUMBER OF OBS: 305

PCT FREQ NH <5/8: 52.5

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	OBSCD	TOTAL OBS
8.0	14.7	13.4	10.2	6.1	5.1	6.7	12.8	23.0	.0	313

PERIOD: (PRIMARY) 1942-1977
(OVER-ALL) 1867-1977

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AREA 0037 GALAPAGOS ISLANDS
.95 90.0W

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1/2<1	PCP	.0	.0	.0	.0	.1	.1	.0	.0	.0	.0	.2	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.1	.1	.0	.0	.0	.0	.2	
1<2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
2<5	PCP	.0	.0	.0	.0	.2	.1	.0	.0	.0	.0	.2	
	NO PCP	.0	.0	.0	.7	.2	.0	.0	.0	.0	.0	1.0	
	TOT %	.0	.0	.0	.7	.4	.1	.0	.0	.0	.0	1.2	
5<10	PCP	.0	.0	.4	1.2	.8	.0	.0	.0	.0	.0	2.4	
	NO PCP	.0	.2	2.7	9.4	6.4	.8	.0	.0	.0	.0	19.5	
	TOT %	.0	.2	3.1	10.6	7.2	.8	.0	.0	.0	.0	21.9	
10+	PCP	.0	.0	.0	1.0	.0	.2	.0	.0	.0	.0	1.2	
	NO PCP	.2	.5	4.0	41.9	24.3	3.3	.2	.0	.0	1.0	75.4	
	TOT %	.2	.5	4.0	42.9	24.3	3.6	.2	.0	.0	1.0	76.6	
TOT OBS													415
TOT PCT		.2	.7	7.0	54.2	32.0	4.6	.2	.0	.0	1.0	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.1	.1	.0	.0	.0	.0	.2	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.1	.1	.0	.0	.0	.0	.2	
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
2<5	0-3	.0	.0	.0	.5	.0	.0	.0	.0	.0	.0	.5	
	4-10	.0	.0	.0	.2	.4	.1	.0	.0	.0	.0	.7	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.7	.4	.1	.0	.0	.0	.0	1.2	
5<10	0-3	.0	.2	.7	3.2	.6	.2	.0	.0	.0	.0	5.0	
	4-10	.0	.0	2.1	6.1	5.8	.6	.0	.0	.0	.0	14.6	
	11-21	.0	.0	.2	1.2	.7	.0	.0	.0	.0	.0	2.2	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.2	3.1	10.6	7.1	.8	.0	.0	.0	.0	21.8	
10+	0-3	.0	.2	.6	5.3	2.6	.4	.0	.0	.0	1.0	10.1	
	4-10	.2	.2	3.2	31.7	13.6	2.3	.2	.0	.0	.0	53.5	
	11-21	.0	.0	.2	6.1	6.0	.9	.0	.0	.0	.0	13.2	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.2	.5	4.0	49.1	24.2	3.5	.2	.0	.0	1.0	76.7	
TOT OBS													417
TOT PCT		.2	.7	7.0	54.4	31.9	4.6	.2	.0	.0	1.0	100.0	

JUNE

PERIOD: (PRIMARY) 1942-1977
(OVER-ALL) 1867-1977AREA 0037 GALAPAGOS ISLANDS
.95 90.0W

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NH >4/8) AND
OCCURRENCE OF NH <5/8 BY HOUR

HR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00003	.0	.0	2.4	9.8	14.6	8.5	2.4	1.2	.0	.0	39.0	61.0	82
06009	.0	.0	.0	7.6	24.2	13.6	.0	.0	.0	.0	45.5	54.5	66
12015	.0	.0	1.4	10.8	24.3	20.3	4.1	.0	1.4	1.4	63.5	36.5	74
18021	.0	.0	2.3	6.9	17.2	9.2	5.7	.0	.0	.0	41.4	58.6	87
TOT	0	0	5	27	61	39	10	1	1	1	145	164	309
PCT	.0	.0	1.6	8.7	19.7	12.6	3.2	.3	.3	.3	46.9	53.1	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NH) BY HOUR

HR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.0	.0	.0	2.6	15.8	81.6	114
06009	.0	.0	.0	.0	24.4	75.6	86
12015	.0	.0	.0	1.9	27.6	70.5	105
18021	.0	.8	.0	.0	19.5	79.7	123
TOT	0	1	0	5	92	330	428
PCT	.0	.2	.0	1.2	21.5	77.1	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NH) AND/OR
CEILING HGT (FEET, NH >4/8), BY HOUR

HR (GMT)	<150 <300YD	<600 <1	<1000 <5	1000+ ANDS+	NH <5/8 AND 5+	TOTAL OBS
00003	.0	2.5	12.3	27.2	60.5	81
06009	.0	.0	7.9	39.7	52.4	63
12015	.0	1.4	13.5	50.0	36.5	74
18021	.0	2.3	9.2	32.2	58.6	87
TOT	0	5	33	112	160	305
PCT	.0	1.6	10.8	36.7	52.5	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
80/84	.0	.0	.0	.0	.0	1.4	.9	.0	10	2.3
75/79	.0	.0	.2	.2	.9	4.6	12.9	7.4	114	26.3
70/74	.0	.0	.0	.0	.9	5.1	27.2	28.3	267	61.5
65/69	.0	.0	.0	.0	.0	.2	3.7	6.0	43	9.9
TOTAL	0	0	1	1	8	49	194	181	434	100.0
PCT	.0	.0	.2	.2	1.8	11.3	44.7	41.7		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
80/84	.0	.0	.2	.7	1.1	.2	.0	.0	.0	.0
75/79	.0	.2	1.4	15.8	6.8	1.8	.2	.0	.0	.0
70/74	.2	.5	4.1	31.3	22.6	1.9	.0	.0	.0	.9
65/69	.0	.0	1.0	7.0	1.4	.5	.0	.0	.0	.0
TOTAL	.2	.7	6.7	54.8	31.9	4.4	.2	.0	.0	.9

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	81	79	77	73	70	68	68	73.1	138
06009	78	77	77	72	69	68	68	72.2	100
12015	82	80	78	72	68	66	65	72.2	130
18021	83	82	80	75	70	69	68	74.9	164
TOT	83	80	79	73	69	67	65	73.3	532

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HR (GMT)	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	.0	3.3	9.2	41.7	45.8	87	120		
06009	.0	.0	.0	6.7	48.3	44.9	89	89		
12015	.0	.0	.9	1.9	43.9	53.3	89	107		
18021	.0	1.6	2.3	23.3	45.7	27.1	84	129		
TOT	0	2	8	49	199	187	87	445		

JUNE

PERIOD: (PRIMARY) 1942-1977
(OVER-ALL) 1867-1977

TABLE 17

AREA 0037 GALAPAGOS ISLANDS
95 90.0MPCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	65 68	69 72	73 76	77 80	81 84	TOT	W FOG	NO FOG
14/16	.0	.0	.0	.3	.0	1	.0	.3
11/13	.0	.0	.0	.3	.0	1	.0	.3
9/10	.0	.0	.0	.6	.0	2	.0	.6
7/8	.0	.0	.3	.3	.3	3	.0	.9
6	.0	.3	.6	.3	.0	4	.0	1.2
5	.0	.0	.6	.6	.0	4	.0	1.2
4	.0	.3	1.2	.6	.0	7	.0	2.1
3	.0	.6	2.4	.6	.0	12	.3	3.3
2	.3	2.4	2.4	2.1	.0	24	.0	7.1
1	.0	4.5	6.0	1.2	.0	39	.0	11.6
0	.6	12.5	6.0	3.9	.0	77	.3	22.6
-1	1.2	10.7	6.8	2.1	.3	71	.0	21.1
-2	.9	6.3	3.6	1.5	.0	41	.3	11.9
-3	.0	3.6	3.0	.6	.0	24	.0	7.1
-4	.0	1.2	.9	.6	.0	9	.0	2.7
-5	.0	.9	.6	.0	.0	5	.0	1.5
-6	.0	.3	1.2	.6	.0	7	.0	2.1
-7/-8	.0	1.2	.0	.0	.0	4	.0	1.2
-9/-10	.0	.3	.0	.0	.0	1	.3	.0
TOTAL	10	131	119	54	2	336	4	332
PCT	3.0	44.9	35.6	16.1	.6	100.0	1.2	98.8

PERIOD: (OVER-ALL) 1963-1977

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	N	22-33	34-47	48+	PCT	1-3	4-10	11-21	NE	22-33	34-47	48+	PCT
41	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0

HGT	1-3	4-10	11-21	E	22-33	34-47	48+	PCT	1-3	4-10	11-21	SE	22-33	34-47	48+	PCT
41	1.0	.0	.0	.0	.0	.0	.0	1.0	1.3	2.4	.0	.0	.0	.0	.0	3.7
1-2	.4	1.2	.4	.0	.0	.0	.0	2.4	1.6	21.2	1.9	.0	.0	.0	.0	24.9
3-4	.0	.0	.0	.0	.0	.0	.0	.6	.0	15.0	3.7	.0	.0	.0	.0	18.8
5-6	.0	1.2	.6	.0	.0	.0	.0	1.2	.6	1.9	4.8	.0	.0	.0	.0	7.3
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.9	.0	.0	.0	.0	.0	.9
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.5	3.3	.4	.0	.0	.0	.0	5.2	3.6	41.3	10.4	.0	.0	.0	.0	55.5

PERIOD: (OVER-ALL) 1963-1977

JUNE

AREA 0037 GALAPAGOS ISLANDS
.9S 90.0W

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.4	.0	.0	.0	.0	.0	.4	1.3	.0	.0	.0	.0	.0	1.9
1-2	1.9	13.7	.6	.0	.0	.0	18.2	.1	3.4	.6	.0	.0	.0	4.2
3-4	.0	6.7	3.9	.0	.0	.0	10.6	.0	.9	.7	.0	.0	.0	1.6
5-6	.0	1.0	1.2	.0	.0	.0	2.2	.0	.0	.0	.0	.0	.0	.0
7	.0	1.3	.0	.0	.0	.0	1.3	.0	.1	.0	.0	.0	.0	.1
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	2.4	22.8	5.7	.0	.0	.0	30.8	1.3	5.1	1.3	.0	.0	.0	7.9

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.6	.0	.0	.0	.0	.6	.0	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.6	.0	.0	.0	.0	.6	.0	.0	.0	.0	.0	.0	.0	100.0

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	5.2	3.4	.0	.0	.0	.0	8.6	
1-2	4.6	40.2	3.4	.0	.0	.0	48.2	
3-4	.0	22.4	8.0	.0	.0	.0	30.5	
5-6	.6	4.0	5.7	.0	.0	.0	10.3	
7	.0	2.3	.0	.0	.0	.0	2.3	
8-9	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	10.3	72.4	17.2	.0	.0	.0	100.0	174

PERIOD: (OVER-ALL) 1949-1977

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT	
<6	1.6	11.0	17.5	3.7	1.6	1.2	.8	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	92	3
6-7	.0	.8	8.9	13.4	5.3	2.8	.4	.0	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	79	5
8-9	.0	1.2	2.4	2.8	1.6	1.2	1.6	.4	1.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	31	6
10-11	.0	.0	.8	1.6	1.6	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	11	6
12-13	.0	.0	2.0	2.0	1.6	.0	.0	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	15	5
>13	.0	.0	.0	.4	.8	.4	.0	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	5	8
INDET	.4	2.8	1.6	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	13	2
TOTAL	5	39	82	60	31	15	7	3	4	0	0	0	0	0	0	0	0	0	0	0	248	5
PCT	2.0	15.9	33.3	24.4	12.6	6.1	2.8	1.2	1.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	

PERIOD: (PRIMARY) 1942-1977
(OVER-ALL) 1868-1977

JULY

AREA 0037 GALAPAGOS ISLANDS
.85 90.0W

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

PRECIPITATION TYPE										OTHER WEATHER PHENOMENA						
WNO DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THOR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	ND SIG WEA	
N	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	
NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	
E	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.9	.0	.0	.0	97.1	
SE	.3	4.1	3.3	.0	.0	.0	.0	7.7	.3	.0	1.3	.0	1.7	.0	88.9	
S	.3	5.4	3.8	.0	.0	.0	.0	9.5	2.8	.0	1.6	.5	2.5	.0	83.2	
SW	.0	.0	6.1	.0	.0	.0	.0	6.1	1.0	.0	4.1	.0	.0	.0	88.8	
W	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	
NW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	
TOT PCT	.2	4.2	3.5	.0	.0	.0	.0	7.9	1.4	.0	1.6	.2	1.9	.0	87.0	
TOT OBS:	432															

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE								OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THOR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	ND SIG WEA
00003	.0	4.5	.0	.0	.0	.0	.0	4.5	.0	.0	1.8	.0	1.8	.0	.0	91.9
06009	1.2	2.4	6.0	.0	.0	.0	.0	9.5	1.2	.0	4.8	.0	.0	.0	.0	84.5
12015	.0	4.3	6.8	.0	.0	.0	.0	11.1	3.4	.0	.9	.0	2.6	.0	.0	82.1
18021	.0	4.6	2.3	.0	.0	.0	.0	6.9	.8	.0	.0	.8	2.3	.0	.0	89.3
TOT PCT	.2	4.1	3.6	.0	.0	.0	.0	7.9	1.4	.0	1.6	.2	1.8	.0	.0	87.1
TOT OBS:	443															

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							48+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)					
	0-3	4-10	11-21	22-33	34-47	00	03					06	09	12	15	18	21
N	.0	.2	.0	.0	.0	.0	.0	.2	5.0	.0	.0	.0	.0	.0	.0	.7	.0
NE	.2	.0	.0	.0	.0	.0	.0	.2	2.0	.0	.0	.0	.0	.0	2.9	.0	.0
E	.5	3.0	.3	.0	.0	.0	.0	3.9	6.6	1.5	2.9	5.8	.0	5.0	11.0	2.6	.0
SE	1.5	33.2	8.6	.0	.0	.0	.0	43.3	8.7	46.2	37.5	46.4	31.3	53.5	30.1	37.6	46.2
S	1.0	28.6	14.9	.0	.0	.0	.0	44.5	9.7	44.7	42.6	41.9	68.8	39.0	39.0	49.3	48.1
SW	.5	4.5	.8	.0	.0	.0	.0	5.8	7.5	6.6	16.9	5.8	.0	1.5	5.1	6.3	5.8
W	.0	.2	.0	.0	.0	.0	.0	.2	5.0	.0	.0	.0	.0	.0	.0	.7	.0
NW	.0	.6	.0	.0	.0	.0	.0	.6	6.0	1.0	.0	.0	.0	.0	.0	1.4	.0
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	1.3							1.3	.0	.0	.0	.0	.0	1.0	11.8	1.4	.0
TOT OBS	27	369	129	0	0	0	0	525	8.8		99	34	90	12	100	34	143
TOT PCT	5.1	70.3	24.6	.0	.0	.0	.0		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)					TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)			
	0-6	7-16	17-27	28-40	41+				00	06	12	18
N	.2	.0	.0	.0	.0	.2	5.0	.0	.0	.0	.0	.0
NE	.2	.0	.0	.0	.0	.2	2.0	.0	.0	.0	.7	.0
E	1.8	2.0	.0	.0	.0	3.9	6.6	1.9	5.1	6.5	2.4	.0
SE	11.5	30.9	.9	.0	.0	43.3	8.7	44.0	44.6	47.6	38.3	.0
S	8.0	35.1	1.4	.0	.0	44.5	9.7	44.2	45.1	39.0	49.2	.0
SW	2.5	3.3	.0	.0	.0	5.8	7.5	9.2	5.1	2.4	6.3	.0
W	.2	.0	.0	.0	.0	.2	5.0	.0	.0	.0	.0	.0
NW	.4	.2	.0	.0	.0	.6	6.0	.8	.0	.0	1.3	.0
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	1.3					1.3	.0	.0	.0	3.7	1.3	.0
TOT OBS	137	376	12	0	0	525	8.8		133	102	134	136
TOT PCT	26.1	71.6	2.3	.0	.0	100.0			100.0	100.0	100.0	100.0

AREA 0037 GALAPAGOS ISLANDS
.85 90.0W

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	WIND SPEED (KNOTS)					48+	MEAN	PCT FREQ	TOTAL OBS
		1-3	4-10	11-21	22-33	34-47				
000503	.0	6.0	64.7	29.3	.0	.0	.0	9.0	100.0	133
005609	.0	.0	76.5	23.5	.0	.0	.0	9.0	100.0	102
126115	3.7	7.5	72.4	16.4	.0	.0	.0	8.0	100.0	134
196211	1.3	1.3	69.2	28.2	.0	.0	.0	9.0	100.0	156
PCT	7	20	369	129	.0	.0	.0	8.8		525
PCT	1.3	3.8	73.3	24.6	.0	.0	.0		100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH $\geq 4/8$)
AND OCCURRENCE OF NH $\leq 5/8$ BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & NBSCD	TOTAL OBS	MEAN CLOUD COVER	000	150	300	600	1000	2000	3500	5000	6500	8000+	NH <5/8 ANY HGT	TOTAL OBS
							149	299	599	999	1999	3499	4999	6499	7999			
N	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
E	.7	.7	1.3	1.9	5.5	.0	.0	.3	.7	1.5	.0	.0	.0	.0	.0	.0	.0	1.8
SE	9.2	7.2	14.3	14.6	5.3	.0	1.1	6.8	12.0	3.8	1.7	.3	.0	.1	19.5	.0	.0	
S	5.9	7.3	16.4	7.3	5.7	.0	.3	1.2	7.0	11.6	3.3	1.4	.3	.0	18.4	.0	.0	
SW	1.1	1.7	1.5	.6	4.1	.0	.0	.0	.2	1.0	.3	.2	.0	.0	.0	.0	.0	3.3
W	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
NW	.3	.0	.0	.0	5.0	.0	.0	.0	.0	.0	.3	.0	.0	.0	.0	.0	.0	.3
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.7	.0	5.3	.0	.0	.0	.0	.7	.0	.0	.0	.0	.0	.0	.0	.7
TOT OBS	53	52	105	97	307	5.4	.0	1	8	45	80	24	10	2	0	2	135	307
TOT PCT	17.3	16.9	34.2	31.6	100.0		.0	.3	2.6	14.7	26.1	7.8	3.3	.7	.0	.7	44.0	100.0

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE
OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

[illegible]

PCT FREQ NH 45/81 43.8

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	OBSCD	TOTAL OBS
6.8	9.6	10.2	9.3	7.5	6.2	7.8	14.3	28.3	.0	322

PERIOD: (PRIMARY) 1942-1977
(OVER-ALL) 1868-1977

JULY

AREA 0087 GALAPAGOS ISLANDS
.85 90.0W

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.5
	NO PCP	.0	.0	.0	.0	.2	.2	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.2	.2	.0	.0	.0	.0	.5	
1<2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
2<5	PCP	.0	.0	.0	.1	.2	.0	.0	.0	.0	.0	.2	.9
	NO PCP	.0	.0	.0	.5	.2	.2	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.6	.3	.2	.0	.0	.0	.0	1.2	
5<10	PCP	.0	.0	.0	2.0	3.2	.3	.0	.0	.0	.0	5.6	19.9
	NO PCP	.0	.0	.5	6.3	6.5	1.1	.0	.0	.0	.0	14.4	
	TOT %	.0	.0	.5	8.3	9.7	1.4	.0	.0	.0	.0	19.9	
10+	PCP	.0	.0	.0	1.3	.8	.0	.0	.0	.0	.0	2.1	78.5
	NO PCP	.2	.2	3.5	33.2	32.9	3.8	.2	.7	.0	1.6	76.4	
	TOT %	.2	.2	3.5	34.5	33.7	3.8	.2	.7	.0	1.6	78.5	
TOT OBS													432
TOT PCT		.2	.2	4.0	43.3	44.0	5.7	.2	.7	.0	1.6	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.5
	4-10	.0	.0	.0	.0	.2	.2	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.2	.2	.0	.0	.0	.0	.5	
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
2<5	0-3	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.2	1.2
	4-10	.0	.0	.0	.5	.2	.0	.0	.0	.0	.0	.7	
	11-21	.0	.0	.0	.1	.2	.0	.0	.0	.0	.0	.2	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.6	.3	.2	.0	.0	.0	.0	1.2	
5<10	0-3	.0	.0	.2	.2	.0	.2	.0	.0	.0	.0	.7	19.9
	4-10	.0	.0	.3	6.4	7.1	1.2	.0	.0	.0	.0	15.0	
	11-21	.0	.0	.0	1.6	2.3	.0	.0	.0	.0	.0	4.2	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.5	8.3	9.7	1.4	.0	.0	.0	.0	19.9	
10+	0-3	.0	.2	.4	1.6	1.2	.1	.0	.0	.0	1.6	5.1	78.5
	4-10	.2	.0	2.7	25.4	20.5	3.0	.2	.7	.0	.0	52.8	
	11-21	.0	.0	.3	7.5	12.1	.7	.0	.0	.0	.0	20.6	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.2	.2	3.5	34.5	33.7	3.8	.2	.7	.0	1.6	78.5	
TOT OBS													432
TOT PCT		.2	.2	4.0	43.3	44.0	5.7	.2	.7	.0	1.6	100.0	

PERIOD: (PRIMARY) 1942-1977
(OVER-ALL) 1868-1977

JULY

AREA 0037 GALAPAGOS ISLANDS
.85 90.0M

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET; NH >4/8) AND
OCCURRENCE OF NH <3/8 BY HOUR

HR	000	150	300	600	1000	2000	3500	5000	6500	8000+	TOTAL	NH <3/8 ANY MGT	TOTAL DBS
(GMT)	149	299	599	999	1999	3499	4999	6499	7999				
00&03	.0	.0	3.7	15.9	23.2	7.3	2.4	.0	.0	.0	52.4	47.6	82
06&09	.0	.0	1.6	11.1	25.4	4.8	3.2	.0	.0	1.6	47.6	52.4	63
12&15	.0	1.2	3.6	21.7	26.5	10.8	3.6	2.4	.0	.0	69.9	30.1	83
18&21	.0	.0	1.1	8.0	29.5	6.8	4.5	.0	.0	1.1	51.1	48.9	88
TOT	0	1	8	45	83	24	11	2	0	2	176	140	316
PCT	.0	.3	2.5	14.2	26.3	7.6	3.5	.6	.0	.6	55.7	44.3	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HR	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL DBS
(GMT)							
00&03	.0	1.8	.0	.0	17.9	80.4	112
06&09	.0	1.2	.0	2.4	21.4	75.0	84
12&15	.0	.0	.0	.9	20.5	78.6	117
18&21	.0	.0	.0	1.5	21.4	77.1	131
TOT	0	3	0	5	90	346	444
PCT	.0	.7	.0	1.1	20.3	77.9	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR
CEILING HGT (FEET; NH >4/8) BY HOUR

HR	<150 <50YD	<600 <1	<1000 <5	1000+ AND 5+	NH <5/8 AND 5+	TOTAL DBS
(GMT)						
00&03	.0	4.9	21.0	33.3	45.7	81
06&09	.0	1.6	12.7	34.9	52.4	63
12&15	.0	4.9	28.0	42.7	29.3	82
18&21	.0	1.1	9.2	42.5	48.3	87
TOT	0	10	56	121	136	313
PCT	.0	3.2	17.9	38.7	43.5	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL DBS	PCT FREQ
85/89	.0	.0	.0	.0	.2	.0	.0	.0	1	.2
80/84	.0	.0	.0	.0	.4	.7	.2	.0	6	1.3
75/79	.0	.0	.0	.0	.9	2.8	6.3	4.1	65	14.1
70/74	.0	.0	.0	.0	.9	8.0	26.5	14.3	229	49.8
65/69	.0	.0	.0	.0	.0	1.7	15.2	17.4	158	34.3
60/64	.0	.0	.0	.0	.0	.0	.0	.2	1	.2
TOTAL	0	0	0	0	11	61	222	166	460	100.0
PCT	.0	.0	.0	.0	2.4	13.3	48.3	36.1		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
85/89	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0
80/84	.0	.0	.3	.3	.7	.0	.0	.0	.0	.0
75/79	.0	.0	.3	5.3	7.9	.5	.0	.0	.0	.0
70/74	.2	.0	1.7	20.0	22.7	3.6	.2	.7	.0	.7
65/69	.0	.2	1.9	17.2	12.7	1.4	.0	.0	.0	.9
60/64	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0
TOT	.2	.2	4.3	43.1	44.0	5.8	.2	.7	.0	1.5

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HR	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL DBS
(GMT)									
00&03	78	77	77	71	67	66	66	71.4	133
06&09	78	77	76	70	67	65	65	70.7	106
12&15	83	80	75	69	65	65	64	69.9	140
18&21	85	83	79	72	68	67	65	72.9	156
TOT	85	81	77	71	67	65	64	71.3	537

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HR	0-29	30-39	60-69	70-79	80-89	90-100	MEAN	TOTAL DBS
(GMT)								
00&03	.0	.0	1.7	11.6	56.2	30.6	86	121
06&09	.0	.0	1.1	7.9	51.7	39.3	87	89
12&15	.0	.0	.8	5.4	42.3	51.5	89	130
18&21	.0	.0	6.1	26.5	43.9	23.5	83	132
TOT	0	0	12	63	227	170	86	472

JULY

PERIOD: (PRIMARY) 1942-1977
(OVER-ALL) 1868-1977

TABLE 17

AREA 0037 GALAPAGOS ISLANDS
.85 90.0WPCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	61 64	65 68	69 72	73 76	77 80	81 84	85 88	TOT	W FOG	WD FOG
7/8	.0	.0	.0	.6	.0	.3	.0	3	.3	.6
6	.0	.0	.6	.6	.3	.0	.0	5	.0	1.4
5	.0	.0	.3	.0	.8	.3	.0	5	.0	1.4
4	.0	.0	.3	1.1	.6	.3	.0	8	.0	2.2
3	.0	.6	.3	1.1	1.9	.0	.0	14	.0	3.9
2	.0	1.7	.6	1.1	.6	.0	.0	14	.0	3.9
1	.0	1.9	5.2	3.6	1.4	.3	.0	45	.0	12.4
0	.0	2.5	14.0	3.3	.6	.3	.0	75	1.1	19.6
-1	.3	3.3	12.1	4.7	.6	.0	.0	76	.6	20.4
-2	.0	1.7	6.6	3.0	.0	.0	.3	42	.0	11.6
-3	.0	1.7	5.2	2.5	.6	.0	.0	36	.0	9.9
-4	.0	1.4	2.5	.8	.0	.0	.0	17	.0	4.7
-5	.0	.8	2.8	.0	.0	.0	.0	13	.0	3.6
-6	.0	.3	.8	.0	.0	.0	.0	4	.0	1.1
-7/-8	.0	.0	.3	.0	.0	.0	.0	1	.0	.3
-9/-10	.0	.3	.3	.3	.0	.0	.0	3	.0	.8
-11/-13	.0	.3	.0	.0	.0	.0	.0	1	.0	.3
-17/-19	.0	.3	.0	.0	.0	.0	.0	1	.0	.3
TOTAL	1	60	188	82	26	5	1	363	7	356
PCT	.3	16.5	51.8	22.6	7.2	1.4	.3	100.0	1.9	98.1

PERIOD: (OVER-ALL) 1963-1977

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	N						PCT	NE						PCT
	1-3	4-10	11-21	22-33	34-47	48+		1-3	4-10	11-21	22-33	34-47	48+	
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0

HGT	E						PCT	SE						PCT
	1-3	4-10	11-21	22-33	34-47	48+		1-3	4-10	11-21	22-33	34-47	48+	
<1	.5	.5	.0	.0	.0	.0	.9	.5	.8	.0	.0	.0	.0	1.3
1-2	.0	1.5	.7	.0	.0	.0	2.3	.0	20.9	3.4	.0	.0	.0	24.3
3-4	.0	1.8	.0	.0	.0	.0	1.8	.5	13.2	4.1	.0	.0	.0	17.8
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.5	3.6	.0	.0	.0	4.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.5	3.8	.7	.0	.0	.0	5.0	.9	35.3	11.1	.0	.0	.0	47.4

PERIOD: (OVER-ALL) 1963-1977

JULY

AREA 0037 GALAPAGOS ISLANDS
.85 90.0W

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	2.0	.0	.0	.0	.0	2.0	.0	.9	.0	.0	.0	.0	.9	
1-2	.0	14.2	2.5	.0	.0	.0	16.7	.0	1.8	.5	.0	.0	.0	2.3	
3-4	.0	10.1	5.8	.0	.0	.0	15.9	.0	.6	.5	.0	.0	.0	1.1	
5-6	.0	.9	5.3	.0	.0	.0	6.4	.0	.0	.0	.0	.0	.0	.0	
7	.0	.5	.9	.0	.0	.0	1.4	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.0	27.7	14.7	.0	.0	.0	42.4	.0	3.3	.9	.0	.0	.0	4.3	

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	99.1

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	2.3	4.2	.0	.0	.0	.0	6.6	
1-2	.5	38.0	7.0	.0	.0	.0	45.5	
3-4	.5	25.4	10.3	.0	.0	.0	36.2	
5-6	.0	1.4	8.9	.0	.0	.0	10.3	
7	.0	.5	.9	.0	.0	.0	1.4	
8-9	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	3.3	69.5	27.2	.0	.0	.0	100.0	213

PERIOD: (OVER-ALL) 1949-1977

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	1.8	13.6	21.6	8.8	2.2	1.1	.4	.0	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	136	3
6-7	.0	.4	4.8	9.5	3.7	2.6	1.5	.7	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	64	6
8-9	.0	1.5	1.8	3.3	2.2	2.6	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	32	6
10-11	.0	.0	1.1	1.5	2.2	.7	.0	.0	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	16	6
12-13	.0	.0	1.1	.0	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	5	5
>13	.0	.0	.0	1.5	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	5	5
INDET	1.1	.0	2.9	1.1	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	13	3
TOTAL	8	42	91	70	31	20	6	2	3	0	0	0	0	0	0	0	0	0	0	273	4
PCT	2.9	15.4	33.3	25.6	11.4	7.3	2.2	.7	1.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	

PERIOD: (PRIMARY) 1942-1977
(OVER-ALL) 1879-1977

AUGUST

AREA 0037 GALAPAGOS ISLANDS
.85 90.0W

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG SNOW	NO SIG WEA
N	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	20.0	.0	80.0
E	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	33.3	.0	66.7
SE	.5	.9	4.5	.0	.0	.0	.0	5.4	4.0	.0	1.4	.0	1.3	.0	87.8
S	.8	6.1	6.5	.0	.0	.0	.0	13.4	1.5	.0	2.0	.0	1.1	.0	82.0
SW	1.2	7.1	4.8	.0	.0	.0	.0	13.1	6.0	.0	2.4	.0	.0	.0	78.6
W	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
NW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
TOT PCT	.6	3.4	5.1	.0	.0	.0	.0	8.9	2.6	.0	1.6	.0	1.6	.0	85.3
TOT OBS:	495														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG SNOW	NO SIG WEA
00003	.7	1.4	1.4	.0	.0	.0	.0	3.5	4.3	.0	3.5	.0	1.4	.0	87.2
06009	1.2	7.4	7.4	.0	.0	.0	.0	16.0	2.5	.0	1.2	.0	1.2	.0	79.0
12015	.7	3.7	9.6	.0	.0	.0	.0	12.3	3.0	.0	.7	.0	1.5	.0	81.5
18021	.0	3.2	5.2	.0	.0	.0	.0	8.4	.6	.0	.6	.0	1.9	.0	88.3
TOT PCT	.6	3.5	5.7	.0	.0	.0	.0	9.6	2.5	.0	1.6	.0	1.6	.0	84.7
TOT OBS:	511														

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	48+					00	03	06	09	12	15	18	21
N	.3	.5	.0	.0	.0	.0		.8	5.0	1.6	.0	1.3	.0	.0	.0	1.7	.6	.0
NE	.2	.0	.0	.0	.0	.0		.2	2.4	.0	.0	1.6	.0	.0	.0	.0	.0	.0
E	.1	1.1	.1	.0	.0	.0		1.3	6.9	.9	3.2	1.9	2.8	.5	3.9	.3	.0	.0
SE	2.4	28.0	10.6	.3	.0	.0		41.3	9.2	43.0	52.3	36.4	26.4	44.5	40.5	40.0	33.7	.0
S	1.4	27.8	17.0	.3	.1	.0		46.5	10.2	47.1	32.4	50.3	62.5	45.8	41.4	48.1	57.6	.0
SW	.0	3.2	1.3	.0	.0	.0		4.6	9.2	5.4	.9	8.4	8.3	4.3	3.9	4.0	.0	.0
W	.5	.9	.1	.0	.0	.0		1.5	5.2	.9	.0	.0	.0	2.0	1.7	1.9	8.7	.0
NW	.2	.9	.0	.0	.0	.0		1.1	7.1	.2	1.9	.0	.0	.0	1.7	2.7	.0	.0
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	2.6							2.6	.0	.9	9.3	.0	.0	3.0	5.2	2.4	.0	.0
TOT OBS	47	379	177	4	1	0	608		9.2	111	54	77	18	100	58	167	23	
TOT PCT	7.7	62.3	29.1	.7	.2	.0		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)					TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)				
	0-6	7-16	17-27	28-40	41+				00 03	06 09	12 15	18 21	
N	.5	.3	.0	.0	.0		.8	5.0	1.1	1.1	.6	.5	
NE	.2	.0	.0	.0	.0		.2	2.4	.0	1.3	.0	.0	
E	.7	.6	.0	.0	.0		1.3	6.9	1.7	2.1	1.7	.3	
SE	10.9	28.7	1.7	*	.0		41.3	9.2	46.1	34.5	43.0	39.2	
S	8.0	35.5	3.0	.1	.0		46.5	10.2	42.3	52.6	44.1	49.2	
SW	1.4	3.1	.1	.0	.0		4.6	9.2	3.9	8.4	4.1	3.6	
W	1.3	.2	.0	.0	.0		1.5	5.2	.6	.0	1.9	2.8	
NW	.4	.7	.0	.0	.0		1.1	7.1	.8	.0	.6	2.4	
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	
CALM	2.6						2.6	.0	3.6	.0	3.8	2.1	
TOT OBS	158	420	29	1	0	608		9.2	155	95	158	190	
TOT PCT	26.0	69.1	4.8	.2	.0		100.0		100.0	100.0	100.0	100.0	

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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)				48+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47					
00003	3.6	3.0	64.2	28.5	.6	.0	.0	.0	9.3	100.0	165
06009	.0	7.4	69.5	23.2	.0	.0	.0	.0	8.6	100.0	95
12015	3.8	6.3	69.0	19.6	.6	.0	.0	.0	8.6	100.0	158
18021	2.1	4.7	51.6	40.5	1.1	.0	.0	.0	10.1	100.0	190
TOT	16	31	379	177	4	1	0		9.2		608
PCT	2.6	5.1	62.3	29.1	.7	.2	.0		100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8-6 OBS	TOTAL OBS	MEAN CLOUD COVER
N	.3	.0	.2	.0		3.0
NE	.1	.0	.0	.3		6.6
E	.2	.3	.2	.4		4.6
SE	2.4	3.4	17.2	17.6		6.5
S	3.1	6.4	20.3	20.5		6.3
SW	.7	.3	1.6	1.8		5.5
W	.3	.0	.6	.3		5.4
NW	.0	.0	.1	.0		7.0
VAR	.0	.0	.0	.0		8.0
CALM	.0	.0	.0	.7		6.3
TOT OBS	22	33	122	126	303	
TOT PCT	7.3	10.9	40.3	41.6	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8)
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

	000	150	300	600	1000	2000	3500	5000	6500	8000+	NH <5/8	TOTAL
	149	299	599	999	1999	3499	4999	6499	7999		ANY HGT	OBS
N	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.3	
NE	.0	.0	.0	.0	.3	.0	.0	.0	.0	.0	.1	
E	.0	.0	.2	.2	.2	.0	.0	.0	.0	.0	.6	
SE	.0	.3	2.3	7.0	11.0	6.4	2.3	.3	.0	.0	11.0	
S	.0	.0	1.7	10.2	14.8	6.8	.7	.7	.0	.3	15.1	
SW	.0	.0	.2	.3	1.1	.7	.7	.0	.0	.3	1.7	
W	.0	.0	.0	.0	.7	.0	.0	.0	.0	.0	.6	
NW	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.0	.0	.3	.3	.0	.0	.0	.0	.0	.0	
TOT OBS	0	1	13	56	86	42	11	3	0	2	89	303
TOT PCT	.0	.3	4.3	18.5	28.4	13.9	3.6	1.0	.0	.7	29.4	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE
OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)							
	>10	>5	>2	>1	>1/2	>1/4	>50YD	>0
>6500	.6	.6	.6	.6	.6	.6	.6	.6
>5000	1.3	1.6	1.6	1.6	1.6	1.6	1.6	1.6
>3500	4.2	5.1	5.1	5.1	5.1	5.1	5.1	5.1
>2000	16.3	19.2	19.2	19.2	19.2	19.2	19.2	19.2
>1000	40.6	47.3	47.9	48.2	48.2	48.2	48.2	48.2
>600	52.7	63.9	65.8	66.1	66.1	66.1	66.1	66.1
>300	55.0	67.7	70.0	70.3	70.3	70.3	70.3	70.3
>150	55.3	68.1	70.3	70.6	70.6	70.6	70.6	70.6
>0	55.3	68.1	70.3	70.6	70.6	70.6	70.6	70.6
TOTAL	173	213	220	221	221	221	221	221

TOTAL NUMBER OF OBS 313

PCT FREQ NH <5/8 29.4

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	OBS	TOTAL OBS
3.3	5.8	4.6	7.9	7.9	6.1	8.8	18.8	36.8	.0	329

PERIOD: (PRIMARY) 1942-1977
(OVER-ALL) 1879-1977

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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1/2<1	PCP	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.2	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.2	
1<2	PCP	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.2	
	NO PCP	.0	.0	.0	.1	.1	.0	.0	.0	.0	.0	.2	
	TOT %	.0	.0	.0	.1	.3	.0	.0	.0	.0	.0	.4	
2<5	PCP	.0	.0	.0	.8	.6	.0	.0	.0	.0	.0	1.4	
	NO PCP	.0	.0	.0	.2	.2	.0	.0	.0	.0	.0	.4	
	TOT %	.0	.0	.0	1.0	.8	.0	.0	.0	.0	.0	1.8	
5<10	PCP	.0	.0	.0	.5	4.3	.5	.0	.0	.0	.0	5.3	
	NO PCP	.0	.0	.3	7.2	8.6	.2	.0	.0	.0	.0	16.2	
	TOT %	.0	.0	.3	7.7	12.9	.6	.0	.0	.0	.0	21.4	
10+	PCP	.0	.0	.0	1.0	.7	.1	.0	.0	.0	.0	1.8	
	NO PCP	.8	.3	1.3	32.9	29.9	3.5	1.7	1.4	.0	2.6	74.3	
	TOT %	.8	.3	1.3	33.9	30.7	3.6	1.7	1.4	.0	2.6	76.2	
TOT OBS													495
TOT PCT		.8	.3	1.5	42.7	44.8	4.2	1.7	1.4	.0	2.6	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.2	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.2	
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.1	.3	.0	.0	.0	.0	.0	.4	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.1	.3	.0	.0	.0	.0	.0	.4	
2<5	0-3	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.2	
	4-10	.0	.0	.0	.6	.8	.0	.0	.0	.0	.0	1.4	
	11-21	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.2	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	1.0	.8	.0	.0	.0	.0	.0	1.8	
5<10	0-3	.0	.0	.0	.5	.8	.0	.0	.0	.0	.0	1.2	
	4-10	.0	.0	.3	6.3	7.5	.6	.0	.0	.0	.0	14.5	
	11-21	.0	.0	.0	.7	4.5	.1	.0	.0	.0	.0	5.3	
	22+	.0	.0	.0	.3	.2	.0	.0	.0	.0	.0	.4	
	TOT %	.0	.0	.3	7.7	12.9	.6	.0	.0	.0	.0	21.4	
10+	0-3	.2	.2	.2	1.7	.8	.1	.6	.2	.0	2.6	6.5	
	4-10	.6	.1	1.0	20.9	17.2	2.3	.9	1.2	.0	.0	44.0	
	11-21	.0	.0	.2	11.2	12.5	1.3	.2	.0	.0	.0	25.3	
	22+	.0	.0	.0	.2	.2	.0	.0	.0	.0	.0	.4	
	TOT %	.8	.3	1.3	33.9	30.7	3.6	1.7	1.4	.0	2.6	76.2	
TOT OBS													495
TOT PCT		.8	.3	1.5	42.7	44.8	4.2	1.7	1.4	.0	2.6	100.0	

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.85 90.0M

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NM >4/8) AND
OCCURRENCE OF NM <5/8 BY HOUR

HOURL (GMT)	000 149	150 299	300 399	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NM <5/8 ANY MGT	TOTAL OBS
00603	.0	.0	4.4	14.3	25.3	12.1	5.5	1.1	.0	1.1	63.7	36.3	91
06609	.0	.0	1.8	21.1	33.3	14.0	.0	1.8	.0	1.8	73.7	26.3	57
12615	.0	1.2	6.1	24.4	28.0	18.3	3.7	.0	.0	.0	81.7	18.3	82
18621	.0	.0	3.4	12.4	30.3	11.2	3.4	1.1	.0	.0	61.8	38.2	89
TOT	0	1	13	86	92	44	11	3	0	2	222	97	319
PCT	.0	.3	4.1	17.6	28.8	13.8	3.4	.9	.0	.6	69.6	30.4	100.0

TABLE 11

PERCENT FREQUENCY VS BY (NM) BY HOUR

HOURL (GMT)	<1/2	1/2<1	1<2	2<3	3<10	10+	TOTAL OBS
00603	.0	.0	.0	1.4	17.1	81.4	140
06609	.0	.0	.0	1.3	35.0	63.8	80
12615	.0	.0	.7	2.2	22.4	74.6	134
18621	.0	.7	.7	2.0	18.3	78.4	153
TOT	0	1	2	9	110	385	507
PCT	.0	.2	.4	1.8	21.7	75.9	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VS BY (NM) AND/OR
CEILING HGT (FEET, NM >4/8), BY HOUR

HOURL (GMT)	<150 <50VD	<600 <1	<1000 <5	1000+ AND5+	NM <5/8 AND 5+	TOTAL OBS
00603	.0	4.5	19.3	46.6	34.1	88
06609	.0	1.8	23.2	50.0	26.8	56
12615	.0	7.4	35.8	48.1	16.0	81
18621	.0	3.4	17.0	45.5	37.5	88
TOT	0	14	74	148	91	313
PCT	.0	4.5	23.6	47.3	29.1	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
80/84	.0	.0	.0	.2	.2	.0	.0	.0	2	.4
75/79	.0	.0	.0	.0	.4	3.0	9.6	.9	42	8.0
70/74	.0	.0	.0	.4	.9	6.6	19.9	5.7	177	35.3
65/69	.0	.0	.0	.0	.2	2.7	26.5	26.5	295	55.9
60/64	.0	.0	.0	.0	.0	.0	.2	2.1	12	2.3
TOTAL	0	0	0	3	9	65	265	186	528	100.0
PCT	.0	.0	.0	.6	1.7	12.3	50.2	35.2		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.0	.0	.0	.0	.3	.0	.0	.0	.0	.0
.0	.0	.0	3.4	3.1	.7	.0	.2	.0	.0
.0	.2	.0	12.3	17.4	1.9	1.0	.2	.0	.4
.5	.0	1.3	26.4	23.6	1.3	.5	.7	.0	1.5
.2	.0	.1	.7	1.1	.0	.0	.2	.0	.0
.7	.2	1.4	42.8	45.5	4.0	1.6	1.3	.0	2.5

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOURL (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00603	77	76	75	69	65	64	64	69.3	173
06609	76	75	74	68	65	62	62	68.8	114
12615	83	77	75	68	64	63	62	68.6	172
18621	81	79	77	70	66	65	64	70.7	198
TOT	83	78	76	69	65	64	62	69.5	657

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOURL (GMT)	0-29	30-39	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00603	.0	.0	2.1	10.3	53.8	33.8	86	145
06609	.0	.0	1.0	7.1	43.9	48.0	88	98
12615	.0	.7	.0	6.7	40.0	52.7	89	130
18621	.0	1.2	3.0	19.5	54.4	21.9	83	169
TOT	0	3	9	65	273	212	86	562

AUGUST

PERIOD: (PRIMARY) 1942-1977
(OVER-ALL) 1879-1977

AREA 0037 GALAPAGOS ISLANDS
85 90.0M

TABLE 17

PCT FRQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	61 64	65 68	69 72	73 76	77 80	81 84	TOT	M FOG	MO FOG
17/19	.0	.0	.0	.0	.0	.3	1	.0	.3
7/8	.0	.0	.3	.0	.0	.0	1	.0	.3
6	.0	.3	.3	.0	.0	.0	2	.0	.5
5	.0	.0	.5	.3	.0	.3	4	.0	1.0
4	.0	.3	1.0	.3	.3	.0	8	.0	2.1
3	.0	.5	1.3	1.8	.3	.0	15	.3	3.6
2	.0	1.0	2.9	.8	.8	.0	21	.0	5.5
1	.0	5.5	3.1	.5	.3	.0	37	.0	9.6
0	.8	7.5	6.5	3.1	.3	.0	70	.0	18.2
-1	1.0	6.5	8.1	2.6	.3	.0	71	1.0	17.4
-2	1.0	5.5	5.7	1.8	.3	.0	53	.5	13.8
-3	.3	4.2	3.1	1.3	.0	.0	34	.0	8.8
-4	.0	3.6	2.3	.8	.0	.0	26	.0	6.8
-5	.0	2.3	2.6	.5	.0	.0	21	.0	5.5
-6	.0	.8	.8	.3	.0	.0	7	.0	1.8
-7/-8	.0	1.8	.5	.3	.0	.0	10	.0	2.6
-9/-10	.0	.3	.0	.0	.0	.0	1	.0	.3
-11/-13	.0	.0	.3	.0	.0	.0	1	.0	.3
TOTAL	12	154	131	55	11	2	385	7	378
PCT	3.1	40.0	39.2	14.3	2.9	.3	100.0	1.8	98.2

PERIOD: (OVER-ALL) 1963-1977

TABLE 18

PCT FRQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1
3-4	.0	.4	.0	.0	.0	.0	.4	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.4	.0	.0	.0	.0	.4	.0	.1	.0	.0	.0	.0	.1

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0	1.1	1.2	.0	.0	.0	.0	2.4
1-2	.0	.8	.0	.0	.0	.0	.8	1.1	14.2	2.5	.0	.0	.0	17.8
3-4	.0	.0	.0	.0	.0	.0	.0	.0	8.8	4.3	.0	.0	.0	13.1
5-6	.0	.0	.0	.0	.0	.0	.0	.0	1.7	4.6	.6	.0	.0	6.8
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.8	.0	.0	.0	.0	.8	2.2	29.8	11.4	.6	.0	.0	40.0

PERIOD: (OVER-ALL) 1963-1977

AUGUST

AREA 0037 GALAPAGOS ISLANDS
.85 90.0W

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	S							PCT	SW							PCT
	1-3	4-10	11-21	22-33	34-47	48+			1-3	4-10	11-21	22-33	34-47	48+		
<1	.6	1.0	.6	.0	.0	.0		2.1	.0	.0	.0	.0	.0	.0		.0
1-2	.0	14.3	6.0	.0	.0	.0		20.3	.0	1.1	1.0	.0	.0	.0		2.1
3-4	.0	11.8	7.8	.0	.0	.0		19.6	.0	1.1	1.8	.0	.0	.0		2.9
5-6	.0	1.1	4.3	.6	.0	.0		6.0	.0	.6	1.1	.0	.0	.0		.7
7	.0	.0	1.7	.0	.0	.0		1.7	.0	.0	.0	.0	.0	.0		.0
8-9	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
10-11	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
12	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
13-16	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
17-19	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
20-22	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
23-25	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
26-32	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
33-40	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
41-48	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
49-60	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
61-70	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
71-86	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
87+	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
TOT PCT	.6	28.2	20.3	.6	.0	.0		49.6	.0	2.8	2.9	.0	.0	.0		5.7

HGT	W							PCT	NW							PCT	TOTAL PCT
	1-3	4-10	11-21	22-33	34-47	48+			1-3	4-10	11-21	22-33	34-47	48+			
<1	.6	.0	.0	.0	.0	.0		.6	.0	.0	.0	.0	.0	.0		.0	
1-2	.6	.6	.0	.0	.0	.0		1.1	.0	.0	.0	.0	.0	.0		.0	
3-4	.0	.0	.0	.0	.0	.0		.0	.0	.1	.0	.0	.0	.0		.1	
5-6	.0	.0	.4	.0	.0	.0		.4	.0	.0	.0	.0	.0	.0		.0	
7	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
8-9	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
10-11	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
12	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
13-16	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
17-19	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
20-22	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
23-25	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
26-32	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
33-40	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
41-48	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
49-60	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
61-70	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
71-86	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
87+	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
TOT PCT	1.1	.6	.4	.0	.0	.0		2.1	.0	.1	.0	.0	.0	.0		.1	98.9

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	4.9	2.2	.5	.0	.0	.0	7.6	
1-2	2.7	30.3	9.2	.0	.0	.0	42.2	
3-4	.0	21.6	13.5	.0	.0	.0	35.1	
5-6	.0	3.2	9.2	1.1	.0	.0	13.5	
7	.0	.0	1.6	.0	.0	.0	1.6	
8-9	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	7.6	57.3	34.1	1.1	.0	.0	100.0	185

PERIOD: (OVER-ALL) 1949-1977

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	1.1	9.9	21.7	5.1	1.8	1.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	112	3
6-7	.0	1.1	7.7	14.0	7.0	1.5	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	86	5
8-9	.0	.0	3.3	3.7	2.6	.7	1.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	31	6
10-11	.0	.4	.7	2.2	1.1	.7	.0	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	13	6
12-13	.0	.0	1.5	.0	.7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	8	4
>13	.0	.0	.0	1.5	.4	.0	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	8	6
INDET	1.1	1.1	1.5	1.5	.4	.0	.0	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	18	4
TOTAL	6	34	99	76	38	12	5	1	1	0	0	0	0	0	0	0	0	0	0	272	4
PCT	2.2	12.5	36.4	27.9	14.0	4.4	1.8	.4	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	

SEPTEMBER

PERIOD: (PRIMARY) 1942-1977
(OVER-ALL) 1879-1977AREA 0037 GALAPAGOS ISLANDS
.75 90.1W

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

PRECIPITATION TYPE										OTHER WEATHER PHENOMENA					
WIND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG SNOW	ND SIG WEA
N	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	40.0	.0	60.0
NE	.0	.0	23.5	.0	.0	.0	.0	23.5	.0	.0	.0	.0	.0	.0	76.5
E	.0	.0	2.8	.0	.0	.0	.0	2.8	.0	.0	.0	.0	1.9	.0	95.3
SE	1.0	1.3	4.5	.0	.0	.0	.0	6.3	1.6	.0	2.6	.0	1.9	.0	87.6
S	.8	2.9	5.5	.0	.0	.0	.0	8.8	3.4	.9	3.7	.0	1.4	.0	81.7
SW	2.5	6.0	8.0	.0	.0	.0	.0	16.1	2.5	.0	1.0	.0	8.0	.0	72.4
W	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	15.8	.0	84.2
NW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	4.8	.0	95.2
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	20.0	.0	.0	.0	.0	.0	.0	20.0	.0	.0	.0	.0	.0	.0	80.0
TOT PCT	1.1	2.3	5.1	.0	.0	.0	.0	8.1	2.3	.4	2.6	.0	2.8	.0	83.8
TOT OBS:	530														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST BLWG SNOW	ND SIG WEA
00003	.0	.6	3.1	.0	.0	.0	.0	3.8	1.9	.0	1.3	.0	3.1	.0	89.9
06009	1.1	1.1	6.9	.0	.0	.0	.0	9.2	2.3	2.3	3.4	.0	2.3	.0	80.5
12015	2.7	3.4	9.5	.0	.0	.0	.0	14.2	4.1	.0	2.0	.0	2.7	.0	77.0
18021	.7	3.5	1.4	.0	.0	.0	.0	5.6	.7	.0	4.2	.0	3.5	.0	86.0
TOT PCT TOT OBS:	1.1 537	2.2	5.0	.0	.0	.0	.0	8.0	2.2	.4	2.6	.0	3.0	.0	83.8

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)						
	0-3	4-10	11-21	22-33	34-47	48+	00				03	06	09	12	15	18	21
N	.2	.6	.0	.0	.0	.0	.8	5.0	.0	7.6	.5	.0	.8	.0	.3	.0	
NE	.3	.2	.2	.0	.0	.0	.7	5.4	.0	7.6	.5	.0	1.7	.0	.0	.0	
E	.1	2.3	2.2	.0	.0	.0	4.6	10.3	3.3	12.5	3.5	.0	2.6	15.1	4.7	.0	
SE	2.7	25.8	7.3	.2	.0	.0	36.0	8.5	38.4	23.6	38.4	14.3	33.6	23.7	41.6	36.2	
S	1.6	28.0	15.2	.2	.0	.0	45.1	9.7	41.8	31.9	50.5	78.6	45.9	48.0	43.6	51.7	
SW	1.6	5.8	1.5	.0	.0	.0	8.9	7.7	11.6	6.3	6.5	7.1	12.4	7.9	5.1	12.1	
W	.6	.7	.3	.0	.0	.0	1.5	6.1	1.4	4.9	.0	.0	1.3	.0	.7	.0	
NW	.2	1.2	.2	.0	.0	.0	1.7	5.9	2.8	9.0	.0	.0	.2	5.3	.7	.0	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.8						.8	.0	.0	2.8	.0	.0	1.5	.0	1.4	.0	
TOT OBS	51	406	169	2	0	0	628	8.9		144	36	93	7	133	38	148	
TOT PCT	8.1	64.6	26.9	.3	.0	.0		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)						
	0-6	7-16	17-27	28-40	41+						00	03	06	12	15	18	21
N	.6	.2	.0	.0	.0			.8	5.0	1.5	.5	.6	.3				
NE	.5	.2	.0	.0	.0			.7	5.4	.8	.5	1.3	.0				
E	1.2	2.2	.2	.0	.0			4.6	10.3	3.1	3.3	5.4	4.0				
SE	10.6	24.6	.8	.0	.0			36.0	8.5	35.4	36.8	31.4	40.7				
S	10.6	31.4	3.1	.0	.0			45.1	9.7	39.9	52.5	46.3	44.9				
SW	4.0	4.1	.8	.0	.0			8.9	7.7	10.6	6.5	11.4	6.2				
W	1.0	.5	.0	.0	.0			1.5	6.1	2.1	.0	1.0	2.3				
NW	1.2	.5	.0	.0	.0			1.7	5.9	4.0	.0	1.3	.6				
VAR	.0	.0	.0	.0	.0			.0	.0	.0	.0	.0	.0				
CALM	.8							.8	.0	.6	.0	1.2	1.1				
TOT OBS	191	407	30	0	0	628			8.9		180	100	171	177			
TOT PCT	30.4	64.8	4.8	.0	.0			100.0			100.0	100.0	100.0	100.0			

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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)			48+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47				
00003	.6	10.0	68.3	20.6	.6	.0	.0	8.5	100.0	180
06009	.0	5.0	61.0	34.0	.0	.0	.0	9.3	100.0	100
12015	1.2	12.3	64.3	22.2	.0	.0	.0	8.0	100.0	171
18021	1.1	1.1	63.3	33.9	.6	.0	.0	9.8	100.0	177
TOT	5	46	406	169	2	0	0	8.9		628
PCT	.8	7.3	64.6	26.9	.3	.0	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	.1	.1	.0	.0		2.0
NE	.1	.3	.0	.0		2.3
E	.4	.5	.6	1.2		5.7
SE	3.6	7.5	14.9	16.8		6.0
S	3.3	4.9	13.3	22.8		6.5
SW	.9	.7	2.8	2.9		6.0
W	.4	.2	.0	.1		3.3
NW	.1	.5	.3	.3		5.0
VAR	.0	.0	.0	.0		3.0
CALM	.0	.3	.0	.0		6.1
TOT OBS	31	52	110	132	345	
TOT PCT	9.0	15.1	31.9	44.1	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8)
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

000	150	300	600	1000	2000	3500	5000	6500	8000+	NH <5/8 ANY HGT	TOTAL OBS
149	299	599	999	1999	3499	4999	6499	7999			
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.4	
.0	.0	.3	.5	.2	.0	.4	.0	.0	.0	1.2	
.0	.4	.7	8.3	12.4	2.9	2.1	.3	.3	.0	15.4	
.6	.7	1.2	5.9	14.8	6.5	3.0	.6	.0	.0	11.0	
.3	.1	.4	.7	1.3	.7	1.3	.0	.0	.0	2.5	
.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.7	
.0	.0	.0	.0	.0	.0	.6	.0	.0	.0	.7	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	
.3	.4	.9	.5	.9	.3	.2	.3	.1	.0	11.2	345
.9	1.2	2.6	15.4	28.7	10.1	7.5	.9	.3	.0	32.5	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE
OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)							
	= OR >10	= OR >5	= OR >2	= OR >1	= OR >1/2	= OR >1/4	= OR >50YD	= OR >0
= OR >6500	.3	.3	.3	.3	.3	.3	.3	.3
= OR >5000	.6	1.1	1.1	1.1	1.1	1.1	1.1	1.1
= OR >3500	3.7	8.6	8.6	8.6	8.6	8.6	8.6	8.6
= OR >2000	10.1	19.0	19.0	19.0	19.0	19.0	19.0	19.0
= OR >1000	33.9	47.7	48.0	48.0	48.0	48.0	48.0	48.0
= OR >600	43.7	62.1	63.2	63.2	63.2	63.2	63.2	63.2
= OR >300	45.4	64.4	65.8	65.8	65.8	65.8	65.8	65.8
= OR >150	46.0	65.5	67.0	67.0	67.0	67.0	67.0	67.0
= OR >0	46.3	66.4	67.8	67.8	67.8	67.8	67.8	67.8
TOTAL	161	231	236	236	236	236	236	236

TOTAL NUMBER OF OBSI 348

PCT FREQ NH <5/8 32.2

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8 OBSCD	TOTAL OBS
2.8	6.8	9.9	7.9	4.5	5.1	9.0	12.7	41.2	354

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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1/2<1	PCP	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.2	
	NO PCP	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.2	
	TOT %	.0	.0	.0	.2	.2	.0	.0	.0	.0	.0	.4	
1<2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
2<5	PCP	.0	.0	.0	.2	.1	*	.0	.0	.0	.0	.4	
	NO PCP	.0	.0	.0	.2	.5	.2	.0	.0	.0	.0	.9	
	TOT %	.0	.0	.0	.4	.7	.3	.0	.0	.0	.0	1.3	
5<10	PCP	.0	.0	.0	1.1	1.9	.8	.0	.0	.0	.2	4.0	
	NO PCP	.2	.1	.9	6.1	12.8	2.0	.4	.2	.0	.0	22.6	
	TOT %	.2	.1	.9	7.2	14.7	2.7	.4	.2	.0	.2	26.6	
10+	PCP	.0	.2	.1	1.0	1.6	.7	.0	.0	.0	.0	3.6	
	NO PCP	.5	.5	4.0	27.7	25.8	5.7	1.4	1.8	.0	.8	68.1	
	TOT %	.5	.7	4.2	28.7	27.4	6.4	1.4	1.8	.0	.8	71.7	
TOT OBS													530
TOT PCT		.7	.8	5.0	30.5	42.9	9.4	1.8	2.0	.0	.9	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.2	.2	.0	.0	.0	.0	.0	.4	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.2	.2	.0	.0	.0	.0	.0	.4	
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.2	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.2	
2<5	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.4	.3	.2	.0	.0	.0	.0	.9	
	11-21	.0	.0	.0	.0	.3	*	.0	.0	.0	.0	.4	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.4	.7	.3	.0	.0	.0	.0	1.3	
5<10	0-3	.0	.0	.1	.3	.6	.2	.1	.1	.0	.2	1.5	
	4-10	.2	.1	.4	4.9	10.0	2.2	.3	.1	.0	.0	18.2	
	11-21	.0	.0	.4	2.0	4.0	.3	.0	.0	.0	.0	6.8	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.2	.1	.9	7.2	14.6	2.7	.4	.2	.0	.2	26.6	
10+	0-3	.0	.4	.0	2.6	1.1	1.7	.6	.2	.0	.8	7.3	
	4-10	.5	.1	2.1	19.9	16.1	3.5	.5	1.4	.0	.0	44.1	
	11-21	.0	.2	2.0	5.9	9.9	1.2	.3	.2	.0	.0	19.8	
	22+	.0	.0	.0	.2	.2	.0	.0	.0	.0	.0	.4	
	TOT %	.5	.7	4.1	28.6	27.3	6.4	1.4	1.8	.0	.8	71.6	
TOT OBS													531
TOT PCT		.7	.8	5.0	36.4	43.0	9.4	1.8	2.0	.0	.9	100.0	

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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NM >4/8) AND
OCCURRENCE OF NM <3/8 BY HOUR

HOURL (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NM <3/8 ANY MGT	TOTAL OBS
00603	1.0	1.0	1.0	13.1	23.2	13.1	7.1	.0	1.0	.0	60.6	39.4	99
06609	1.4	1.4	5.5	19.2	30.1	8.2	6.8	.0	.0	.0	72.6	27.4	73
12615	1.1	1.1	4.5	17.0	25.2	12.5	6.8	2.3	.0	.0	80.7	19.3	88
18621	.0	1.1	.0	12.4	28.1	6.7	9.0	1.1	.0	.0	58.4	41.6	89
TOT	3	4	9	53	101	36	26	3	1	0	236	113	349
PCT	.9	1.1	2.6	15.2	28.9	10.3	7.4	.9	.3	.0	67.6	32.4	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOURL (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00603	.0	.0	1.3	.6	16.9	81.3	160
06609	.0	1.1	.0	1.1	42.5	55.2	87
12615	.0	.0	.0	1.4	28.4	70.3	148
18621	.0	.7	.0	2.1	26.1	71.1	142
TOT	0	2	2	7	143	383	537
PCT	.0	.4	.4	1.3	26.6	71.3	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR
CEILING HGT (FEET, NM >4/8) BY HOUR

HOURL (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND 5+	NM <3/8 AND 5+	TOTAL OBS
00603	1.0	3.0	16.2	44.4	39.4	99
06609	1.4	8.2	27.4	45.2	27.4	73
12615	1.1	6.9	24.1	57.5	18.4	87
18621	.0	1.1	14.6	43.8	41.6	89
TOT	3	16	70	166	112	348
PCT	.9	4.6	20.1	47.7	32.2	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
80/84	.0	.0	.0	.0	.2	.2	.0	.0	2	.4
75/79	.0	.0	.0	.4	1.3	2.9	1.1	.2	27	6.0
70/74	.0	.0	.0	.0	1.1	10.2	18.8	9.1	177	39.2
65/69	.0	.0	.0	.0	.2	3.1	23.7	24.8	234	51.9
60/64	.0	.0	.0	.0	.0	.0	.2	2.0	10	2.2
55/59	.0	.0	.0	.0	.0	.0	.0	.2	1	.2
TOTAL	0	0	0	2	13	74	198	164	451	100.0
PCT	.0	.0	.0	.4	2.9	16.4	43.9	36.4		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
80/84	.0	.0	.0	.2	.2	.1	.0	.0	.0	.0
75/79	.0	.0	.7	2.4	1.5	.9	.2	.1	.0	.2
70/74	.0	.0	1.5	13.4	20.3	3.2	.6	.1	.0	.2
65/69	.8	.1	2.8	19.8	23.6	3.4	.0	.9	.0	.4
60/64	.0	.0	.2	.6	.9	.1	.2	.2	.0	.0
55/59	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0
TOTAL	.8	.1	5.2	36.4	46.7	7.6	1.0	1.2	.0	.9

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOURL (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00603	78	77	76	70	65	65	64	70.0	182
06609	76	75	75	69	65	63	63	69.1	101
12615	76	75	73	68	64	62	59	68.1	171
18621	83	81	78	70	67	64	63	71.0	179
TOT	83	78	76	69	65	63	59	69.6	633

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOURL (GMT)	0-29	30-39	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00603	.0	.9	5.5	10.0	51.8	31.8	85	110
06609	.0	.0	2.3	11.6	45.3	40.7	87	86
12615	.0	.8	.8	7.9	33.3	57.1	88	126
18621	.0	.0	3.0	32.1	47.8	17.2	82	134
TOT	0	2	15	74	202	165	85	456

SEPTEMBER

PERIOD: (PRIMARY) 1942-1977
(OVER-ALL) 1879-1977

TABLE 17

AREA 0037 GALAPAGOS ISLANDS
.75 90.1W

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	57 60	61 64	65 68	69 72	73 76	77 80	81 84	TOT	M FOG	NO FOG
9/10	.0	.0	.0	.2	.0	.0	.2	2	.0	.4
7/8	.0	.0	.7	.4	.0	.7	.2	9	.0	2.0
6	.0	.0	.4	.0	1.3	.2	.2	11	.0	2.4
5	.0	.0	.4	.0	.9	.4	.0	8	.0	1.7
4	.0	.0	.2	1.3	.4	.4	.0	11	.0	2.4
3	.0	.0	.4	2.6	1.7	.2	.0	23	.0	5.0
2	.0	.2	2.0	3.9	.7	.9	.0	35	.4	7.2
1	.0	.0	3.5	2.2	2.4	.2	.0	38	.2	8.1
0	.0	.0	5.7	3.9	2.8	.0	.0	57	.4	12.0
-1	.0	.2	7.6	6.1	2.2	.0	.0	74	1.1	15.1
-2	.0	.2	5.5	6.1	1.3	.2	.0	61	.2	13.1
-3	.0	.2	3.1	4.4	.7	.0	.0	38	.2	8.1
-4	.0	.4	2.4	2.4	.4	.0	.0	26	.2	5.5
-5	.0	.4	2.2	3.1	.9	.0	.0	30	.2	6.3
-6	.2	.4	1.1	1.5	.4	.0	.0	17	.0	3.7
-7/-8	.0	.0	1.1	1.5	.2	.0	.0	13	.0	2.8
-9/-10	.0	.0	.7	.0	.0	.0	.0	3	.0	.7
-14/-16	.0	.0	.0	.2	.0	.0	.0	1	.0	.2
-17/-19	.0	.0	.0	.0	.0	.0	.0	1	.0	.2
TOTAL	1	10	170	183	76	15	3	458	14	444
PCT	.2	2.2	37.1	40.0	16.6	3.3	.7	100.0	3.1	96.9

PERIOD: (OVER-ALL) 1963-1977

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	2.3	.0	.0	.0	.0	2.3
1-2	.0	1.0	.0	.0	.0	.0	1.0	.6	14.6	.0	.0	.0	.0	15.2
3-4	.0	.4	.0	.0	.0	.0	.4	.6	14.2	8.9	.0	.0	.0	23.7
5-6	.0	.0	.0	.0	.0	.0	.0	.0	1.3	3.0	.0	.0	.0	4.3
7	.0	.0	.6	.0	.0	.0	.6	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	2.4	.6	.0	.0	.0	3.0	1.1	32.4	11.9	.0	.0	.0	45.5

PERIOD: (OVER-ALL) 1963-1977

SEPTEMBER

AREA 0037 GALAPAGOS ISLANDS
.75 90.1W

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	10.7	2.8	.0	.0	.0	13.5	.0	3.2	.0	.0	.0	.0	.0	3.2
3-4	.0	8.5	10.8	.0	.0	.0	19.9	.0	1.8	.1	.0	.0	.0	.0	2.0
5-6	.0	1.4	5.7	.0	.0	.0	7.1	.0	.3	.4	.0	.0	.0	.0	.7
7	.0	.0	1.1	.0	.0	.0	1.1	.0	.6	.6	.0	.0	.0	.0	1.1
8-9	.0	.0	.6	.0	.0	.0	.6	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.6	.0	.0	.0	.0	.6
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	21.2	21.0	.6	.0	.0	42.8	.0	6.0	1.7	.0	.0	.0	.0	7.7

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.4	.0	.0	.0	.0	.4	.0	.1	.0	.0	.0	.0	.0	.1
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.4	.0	.0	.0	.0	.4	.0	.1	.0	.0	.0	.0	.1	99.4

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	1.7	3.4	.0	.0	.0	.0	5.1	
1-2	.6	29.8	2.8	.0	.0	.0	32.1	
3-4	.0	24.7	19.7	.6	.0	.0	45.5	
5-6	.0	3.4	9.0	.0	.0	.0	12.4	
7	.0	.6	2.2	.0	.0	.0	2.8	
8-9	.0	.0	.6	.0	.0	.0	.6	
10-11	.0	.0	.6	.0	.0	.0	.6	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	2.8	61.8	34.8	.6	.0	.0	100.0	178

PERIOD: (OVER-ALL) 1949-1977

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	.0	9.4	12.3	7.2	4.3	1.1	.4	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	97
6-7	.7	.4	6.9	11.9	5.8	1.4	1.8	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	80
8-9	.0	1.4	1.4	4.0	3.2	.4	.7	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	32
10-11	.0	.0	.4	.4	2.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	8
12-13	.0	.0	.0	.4	.4	.4	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	4
>13	.0	.0	.0	.4	1.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	7
INDEX	15.5	.0	1.1	1.1	.4	.7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	32
TOTAL	45	31	61	70	48	11	9	2	0	0	0	0	0	0	0	0	0	0	0	0	277
PCT	16.2	11.2	22.0	25.3	17.3	4.0	3.2	.7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0

OCTOBER

PERIOD: (PRIMARY) 1942-1976
(OVER-ALL) 1868-1976

AREA 0037 GALAPAGOS ISLANDS
.75 90.2W

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA						
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THOR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST SIG
N	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
E	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
SE	1.3	.2	2.6	.0	.0	.0	.0	4.2	1.9	.0	2.1	.0	.0	92.2
S	2.1	1.3	3.8	.0	.0	.0	.0	7.2	1.9	.0	1.0	.0	.0	90.5
SW	6.1	4.3	3.2	.0	.0	.0	.0	13.7	4.3	.0	.0	.0	.0	81.9
W	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
NW	.0	.0	7.4	.0	.0	.0	.0	7.4	.0	.0	.0	.0	.0	92.6
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	7.1	.0	.0	.0	.0	7.1	.0	.0	7.1	.0	.0	85.7
TOT PCT	2.1	1.3	3.4	.0	.0	.0	.0	6.8	1.6	.0	1.3	.0	.0	90.3
TOT OBS:	559													

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA						
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THOR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST SIG
00003	2.4	1.8	.6	.0	.0	.0	.0	4.8	1.2	.0	.0	.0	.0	93.9
06009	3.0	1.0	7.9	.0	.0	.0	.0	11.9	2.0	.0	3.0	.0	.0	83.2
12015	.6	1.2	4.8	.0	.0	.0	.0	6.7	3.0	.0	1.8	.0	.0	88.5
18021	2.9	.7	2.2	.0	.0	.0	.0	5.8	.7	.0	.7	.0	.0	92.8
TOT PCT	2.1	1.2	3.5	.0	.0	.0	.0	6.9	1.8	.0	1.2	.0	.0	90.2
TOT OBS:	569													

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	48+					00	03	06	09	12	15	18	21
N	.0	.2	.3	.0	.0	.0		.5	12.0		.0	1.9	.0	.0	.0	.0	1.7	.0
NE	.3	.3	.0	.0	.0	.0		.6	3.7		.0	.0	.0	.0	2.1	.0	.7	.0
E	.3	.9	.2	.0	.0	.0		1.4	7.6		1.4	.0	.0	.0	4.3	.0	.7	.0
SE	1.0	21.1	3.9	.1	.0	.0		28.1	8.7		22.3	19.4	32.2	38.2	33.6	32.9	26.5	21.4
S	1.7	31.6	17.2	.4	.0	.0		50.9	9.8		55.1	50.0	56.4	52.6	41.8	32.9	53.4	75.0
SW	1.6	6.9	3.5	.0	.0	.0		12.0	8.6		12.6	23.1	9.3	9.2	9.6	28.9	10.0	3.6
W	1.0	.8	.4	.0	.0	.0		2.2	5.0		5.3	1.9	.0	.0	1.2	.0	3.0	.0
NW	1.1	.6	.3	.0	.0	.0		2.1	5.1		3.4	1.3	.0	.0	2.7	2.6	2.0	.0
VAR	.0	.0	.0	.0	.0	.0		.0	.0		.0	.0	.0	.0	.0	.0	.0	.0
CALM	2.1							2.1	.0		.0	2.5	2.1	.0	4.8	2.6	2.0	.0
TOT OBS	60	410	183	3	0	0		656	8.9		147	40	97	19	146	38	148	21
TOT PCT	9.1	62.5	27.9	.5	.0	.0		100.0			100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)					TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)				
	0-6	7-16	17-27	28-40	41+				00	03	06	12	18
N	.0	.5	.0	.0	.0	.0	.5	12.0	.4	.0	.0	.0	1.5
NE	.6	.0	.0	.0	.0	.0	.6	3.7	.0	.0	.0	1.6	.6
E	.6	.8	.1	.0	.0	.0	1.4	7.6	1.1	.0	.0	3.4	.6
SE	9.1	17.5	1.4	.0	.0	.0	28.1	8.7	21.7	33.2	33.4	25.9	
S	12.5	33.3	4.2	.0	.0	.0	50.9	9.8	54.0	55.8	39.9	56.1	
SW	4.2	7.4	.4	.0	.0	.0	12.0	8.6	14.8	9.3	13.6	9.2	
W	1.9	.4	.0	.0	.0	.0	2.2	5.0	4.5	.0	1.0	2.7	
NW	1.6	.5	.0	.0	.0	.0	2.1	5.1	2.9	.0	2.7	1.8	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	2.1					.0	2.1	.0	.5	1.7	4.3	1.8	
TOT OBS	220	396	40	0	0	656	187	8.9	116	184	169		
TOT PCT	33.5	60.4	6.1	.0	.0	100.0			100.0	100.0	100.0	100.0	

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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)			48+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47				
00003	.5	11.8	61.5	25.7	.5	.0	.0	8.4	100.0	187
06009	1.7	2.6	63.8	31.9	.0	.0	.0	9.5	100.0	116
12015	4.3	10.9	66.3	17.9	.5	.0	.0	7.8	100.0	184
18021	1.8	.6	58.6	38.5	.6	.0	.0	10.1	100.0	169
TOT	14	46	410	183	3	0	0	8.9		656
PCT	2.1	7.0	62.5	27.9	.5	.0	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	.0	.0	.0	.0		.0
NE	.0	.0	.0	.0		.0
E	.0	.0	.2	.9		7.4
SE	4.0	4.3	9.5	11.2		5.8
S	7.1	7.3	21.7	22.0		6.0
SW	.2	.6	4.6	3.4		6.6
W	.3	.0	.3	.2		5.0
NW	.0	.0	.0	.0		.0
VAR	.0	.0	.0	.0		.0
CALM	.3	.0	.6	1.2		6.8
TOT OBS	40	41	124	131	336	6.0
TOT PCT	11.9	12.2	36.9	39.0	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8)
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

000	150	300	600	1000	2000	3500	5000	6500	8000+	NH <5/8	TOTAL
149	299	599	1199	2399	4799	9599	19199	38399	76799	ANY HGT	OBS
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
.0	.0	.3	4.8	7.4	4.7	1.3	.0	.0	.3	10.3	
.0	.0	1.2	11.1	17.1	7.0	2.2	.9	.3	.3	18.0	
.0	.0	.3	1.4	3.0	1.4	.4	.0	.0	.0	2.4	
.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.6	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
.0	.0	.0	.0	1.2	.3	.0	.0	.0	.0	.6	
.0	.0	.6	.8	.9	.7	.3	.1	.2	107	336	
.0	.0	1.8	17.3	29.5	14.0	3.9	.9	.3	.6	31.8	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE
OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)							
	= OR >10	= OR >5	= OR >2	= OR >1	= OR >1/2	= OR >1/4	= OR >50YD	= OR >0
= OR >6500	.9	.9	.9	.9	.9	.9	.9	.9
= OR >5000	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
= OR >3500	5.0	5.9	5.9	5.9	5.9	5.9	5.9	5.9
= OR >2000	17.0	19.9	19.9	19.9	19.9	19.9	19.9	19.9
= OR >1000	43.4	48.7	49.3	49.3	49.6	49.6	49.6	49.6
= OR >600	56.9	65.4	66.0	66.3	66.6	66.6	66.6	66.6
= OR >300	57.5	67.2	67.7	68.0	68.3	68.3	68.3	68.3
= OR >150	57.5	67.2	67.7	68.0	68.3	68.3	68.3	68.3
= OR >0	57.5	67.2	67.7	68.0	68.3	68.3	68.3	68.3
TOTAL	196	229	231	232	233	233	233	233

TOTAL NUMBER OF OBS 341

PCT FREQ NH <5/8 31.7

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8 OBSCD	TOTAL OBS
3.4	5.9	9.0	8.1	5.0	7.3	7.3	18.5	35.6	357

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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VISBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.1	.1	.0	.0	.0	.0	.0	.2	
	NO PCP	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.2	
	TOT %	.0	.0	.0	.3	.1	.0	.0	.0	.0	.0	.4	
1/2<1	PCP	.0	.0	.0	.0	.2	.2	.0	.0	.0	.0	.4	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.2	.2	.0	.0	.0	.0	.4	
1<2	PCP	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.2	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.2	
2<5	PCP	.0	.0	.0	.0	.5	.0	.0	.0	.0	.0	.5	
	NO PCP	.0	.0	.0	.1	.3	.0	.0	.0	.0	.0	.4	
	TOT %	.0	.0	.0	.1	.8	.0	.0	.0	.0	.0	.9	
5<10	PCP	.0	.0	.0	.8	1.5	1.1	.0	.0	.0	.0	3.4	
	NO PCP	.0	.0	.0	3.4	7.5	1.8	.0	.0	.0	.2	12.9	
	TOT %	.0	.0	.0	4.2	9.0	2.9	.0	.0	.0	.2	16.3	
10+	PCP	.0	.0	.0	.4	1.3	.4	.0	.2	.0	.2	2.1	
	NO PCP	.4	.7	1.7	22.9	38.6	8.9	2.3	2.2	.0	2.1	79.8	
	TOT %	.4	.7	1.7	22.9	39.9	9.3	2.3	2.4	.0	2.3	81.9	
TOT OBS													559
TOT PCT		.4	.7	1.7	27.7	50.0	12.4	2.3	2.4	.0	2.5	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED
WITH VARYING VALUES OF VISIBILITY

VISBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.3	.3	.0	.0	.0	.0	.0	.5	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.3	.3	.0	.0	.0	.0	.0	.5	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.2	
	11-21	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.2	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.2	.2	.0	.0	.0	.0	.4	
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.2	
	11-21	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.2	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.2	.1	.0	.0	.0	.0	.0	.4	
2<5	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.1	.8	.0	.0	.0	.0	.0	.9	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.1	.8	.0	.0	.0	.0	.0	.9	
5<10	0-3	.0	.0	.0	.0	.4	.0	.0	.0	.0	.2	.5	
	4-10	.0	.0	.0	3.3	5.3	1.7	.0	.0	.0	.0	10.3	
	11-21	.0	.0	.0	.8	3.3	1.2	.0	.0	.0	.0	5.3	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	4.2	8.9	2.9	.0	.0	.0	.2	16.1	
10+	0-3	.0	.4	.4	1.1	1.4	1.9	1.2	1.2	.0	2.3	9.8	
	4-10	.2	.4	1.0	16.9	24.1	5.5	.8	.8	.0	.0	49.6	
	11-21	.4	.0	.3	4.7	13.9	1.9	.3	.4	.0	.0	21.8	
	22+	.0	.0	.0	.1	.4	.0	.0	.0	.0	.0	.5	
	TOT %	.6	.7	1.6	22.7	39.8	9.3	2.3	2.4	.0	2.3	81.7	
TOT OBS													564
TOT PCT		.6	.7	1.6	27.4	50.1	12.4	2.3	2.4	.0	2.5	100.0	

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PERIOD: (PRIMARY) 1942-1976
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.75 90.2M

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NM >4/8) AND
OCCURRENCE OF NM <5/8 BY HOUR

HOURL (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NM <5/8 ANY HGT	TOTAL OBS
00003	.0	.0	2.1	11.3	30.9	14.4	3.1	1.0	.0	.0	62.9	37.1	97
06009	.0	.0	5.9	11.8	29.4	13.2	7.4	1.5	1.5	1.5	72.1	27.9	68
12015	.0	.0	.0	25.8	30.3	16.9	3.4	.0	.0	.0	76.4	23.6	89
18021	.0	.0	.0	17.6	26.4	11.0	3.3	1.1	.0	1.1	60.4	39.6	91
TOT	0	0	6	58	101	48	14	3	1	2	233	112	345
PCT	.0	.0	1.7	16.8	29.3	13.9	4.1	.9	.3	.6	67.5	32.5	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOURL (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.0	.0	.6	.0	9.0	90.4	166
06009	2.9	.0	.0	.0	35.3	61.8	102
12015	.0	1.2	.0	3.6	11.4	83.8	167
18021	.0	.0	.7	.0	15.8	83.5	139
TOT	3	2	2	6	92	469	574
PCT	.5	.3	.3	1.0	16.0	81.7	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR
CEILING HGT (FEET, NM >4/8), BY HOUR

HOURL (GMT)	<150 <50YD	<600 <1	<1000 <3	1000+ AND 5+	NM <5/8 AND 5+	TOTAL OBS
00003	.0	2.1	13.5	50.0	36.5	96
06009	.0	7.4	19.1	54.4	26.5	68
12015	.0	1.2	30.2	48.8	20.9	86
18021	.0	.0	17.6	42.9	39.6	91
TOT	0	8	68	166	107	341
PCT	.0	2.3	19.9	48.7	31.4	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
80/84	.0	.0	.0	.2	.0	1.6	.2	.0	10	2.0
75/79	.0	.0	.0	.0	.6	4.0	4.4	2.0	55	11.1
70/74	.0	.0	.0	.0	2.8	12.1	23.4	9.3	236	47.7
65/69	.0	.0	.0	.0	.2	3.8	19.8	13.7	186	37.6
60/64	.0	.0	.0	.0	.0	.2	.4	1.0	8	1.6
TOTAL	0	0	0	1	18	108	239	129	495	100.0
PCT	.0	.0	.0	.2	3.6	21.8	48.3	26.1		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
80/84	.0	.0	.0	.2	1.0	.5	.4	.0	.0	.0
75/79	.2	.0	.4	1.8	5.3	3.5	.0	.0	.0	.0
70/74	.3	.2	.1	13.8	27.8	4.1	.5	.3	.0	.6
65/69	.2	.0	.3	12.6	18.8	3.7	.2	.7	.0	1.0
60/64	.0	.0	.0	.8	.6	.1	.0	.0	.0	.2
TOTAL	.7	.2	1.0	29.1	53.4	11.8	1.1	.9	.0	1.8

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOURL (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	83	79	77	70	66	63	64	70.8	190
06009	75	74	74	69	66	64	62	69.3	120
12015	79	78	76	68	65	64	63	69.1	185
18021	86	85	80	72	68	66	66	72.8	168
TOT	86	80	77	70	65	64	62	70.5	663

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOURL (GMT)	0-29	30-39	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	.0	.8	21.8	50.4	26.9	85	119
06009	.0	.0	.0	12.1	53.5	34.3	87	99
12015	.0	.0	1.5	11.5	49.6	37.4	87	131
18021	.0	.6	9.7	36.1	41.3	12.3	80	155
TOT	0	1	18	109	242	134	84	504

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TABLE 17

AREA 0037 GALAPAGOS ISLANDS
.75 90.2M

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	61 64	65 65	69 72	73 76	77 80	81 84	85 88	TOT	W FOG	NO FOG
14/16	.0	.0	.0	.2	.2	.0	.2	3	.0	.6
11/13	.0	.0	.0	.2	.0	.0	.0	1	.0	.2
9/10	.0	.0	.2	.2	.6	.2	.0	6	.0	1.2
7/8	.0	.0	1.2	.6	.8	.0	.0	13	.0	2.6
6	.0	.4	.8	.8	.0	.0	.0	10	.0	2.0
5	.0	.6	1.6	.2	.0	.0	.0	12	.0	2.4
4	.0	.4	2.0	.8	.0	.0	.0	16	.0	3.2
3	.0	1.0	1.6	1.0	.0	.0	.0	18	.0	3.7
2	.0	1.0	3.4	1.0	.2	.0	.0	28	.0	5.7
1	.2	1.8	3.0	2.8	.0	.0	.0	39	.2	7.7
0	.2	5.9	5.9	2.8	.2	.0	.0	74	.0	15.0
-1	.2	5.1	5.3	3.9	.2	.2	.0	73	.6	14.2
-2	.4	5.7	4.7	3.0	.0	.0	.0	68	.2	13.6
-3	.4	3.0	5.1	2.0	.4	.0	.0	54	.2	10.8
-4	.0	1.4	3.2	.8	.0	.0	.0	27	.0	5.5
-5	.0	1.6	2.4	.4	.0	.0	.0	22	.2	4.3
-6	.0	1.2	1.0	.2	.2	.0	.0	13	.0	2.6
-7/-8	.2	1.2	1.2	.0	.0	.0	.0	13	.0	2.6
-9/-10	.0	.0	.2	.2	.0	.0	.0	2	.0	.4
-11/-13	.0	.2	.0	.0	.0	.0	.0	1	.0	.2
TOTAL	8		212	14		1		493	7	486
PCT	1.6	30.6	43.0	21.3	2.8	.4	.2	100.0	1.4	98.6

PERIOD: (OVER-ALL) 1963-1976

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

N										NE									
HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT			1-3	4-10	11-21	22-33	34-47	48+	PCT			
<1	.0	.0	.0	.0	.0	.0	.0			.0	.0	.0	.0	.0	.0	.0			
1-2	.0	.0	.0	.0	.0	.0	.0			.0	.0	.0	.0	.0	.0	.0			
3-4	.0	.0	.0	.0	.0	.0	.0			.0	.0	.0	.0	.0	.0	.0			
5-6	.0	.0	.0	.0	.0	.0	.0			.0	.0	.0	.0	.0	.0	.0			
7	.0	.0	.0	.0	.0	.0	.0			.0	.0	.0	.0	.0	.0	.0			
8-9	.0	.0	.0	.0	.0	.0	.0			.0	.0	.0	.0	.0	.0	.0			
10-11	.0	.0	.0	.0	.0	.0	.0			.0	.0	.0	.0	.0	.0	.0			
12	.0	.0	.0	.0	.0	.0	.0			.0	.0	.0	.0	.0	.0	.0			
13-16	.0	.0	.0	.0	.0	.0	.0			.0	.0	.0	.0	.0	.0	.0			
17-19	.0	.0	.0	.0	.0	.0	.0			.0	.0	.0	.0	.0	.0	.0			
20-22	.0	.0	.0	.0	.0	.0	.0			.0	.0	.0	.0	.0	.0	.0			
23-25	.0	.0	.0	.0	.0	.0	.0			.0	.0	.0	.0	.0	.0	.0			
26-32	.0	.0	.0	.0	.0	.0	.0			.0	.0	.0	.0	.0	.0	.0			
33-40	.0	.0	.0	.0	.0	.0	.0			.0	.0	.0	.0	.0	.0	.0			
41-48	.0	.0	.0	.0	.0	.0	.0			.0	.0	.0	.0	.0	.0	.0			
49-60	.0	.0	.0	.0	.0	.0	.0			.0	.0	.0	.0	.0	.0	.0			
61-70	.0	.0	.0	.0	.0	.0	.0			.0	.0	.0	.0	.0	.0	.0			
71-86	.0	.0	.0	.0	.0	.0	.0			.0	.0	.0	.0	.0	.0	.0			
87+	.0	.0	.0	.0	.0	.0	.0			.0	.0	.0	.0	.0	.0	.0			
TOT PCT	.0	.0	.0	.0	.0	.0	.0			.0	.0	.0	.0	.0	.0	.0			

E										SE									
HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT			1-3	4-10	11-21	22-33	34-47	48+	PCT			
<1	.0	.0	.0	.0	.0	.0	.0			.0	.6	.0	.0	.0	.0	.6			
1-2	.0	.4	.0	.0	.0	.0	.4			.5	11.2	1.1	.0	.0	.0	12.8			
3-4	.0	.4	.0	.0	.0	.0	.4			.0	12.9	1.8	.0	.0	.0	14.8			
5-6	.0	.0	.0	.0	.0	.0	.0			.0	.1	1.7	.0	.0	.0	1.8			
7	.0	.0	.0	.0	.0	.0	.0			.0	.5	.1	.0	.0	.0	.6			
8-9	.0	.0	.0	.0	.0	.0	.0			.0	.0	.0	.0	.0	.0	.0			
10-11	.0	.0	.0	.0	.0	.0	.0			.0	.0	.0	.0	.0	.0	.0			
12	.0	.0	.0	.0	.0	.0	.0			.0	.0	.0	.0	.0	.0	.0			
13-16	.0	.0	.0	.0	.0	.0	.0			.0	.0	.0	.0	.0	.0	.0			
17-19	.0	.0	.0	.0	.0	.0	.0			.0	.0	.0	.0	.0	.0	.0			
20-22	.0	.0	.0	.0	.0	.0	.0			.0	.0	.0	.0	.0	.0	.0			
23-25	.0	.0	.0	.0	.0	.0	.0			.0	.0	.0	.0	.0	.0	.0			
26-32	.0	.0	.0	.0	.0	.0	.0			.0	.0	.0	.0	.0	.0	.0			
33-40	.0	.0	.0	.0	.0	.0	.0			.0	.0	.0	.0	.0	.0	.0			
41-48	.0	.0	.0	.0	.0	.0	.0			.0	.0	.0	.0	.0	.0	.0			
49-60	.0	.0	.0	.0	.0	.0	.0			.0	.0	.0	.0	.0	.0	.0			
61-70	.0	.0	.0	.0	.0	.0	.0			.0	.0	.0	.0	.0	.0	.0			
71-86	.0	.0	.0	.0	.0	.0	.0			.0	.0	.0	.0	.0	.0	.0			
87+	.0	.0	.0	.0	.0	.0	.0			.0	.0	.0	.0	.0	.0	.0			
TOT PCT	.0	.7	.0	.0	.0	.0	.7			.5	25.4	4.8	.0	.0	.0	30.6			

PERIOD: (OVER-ALL) 1963-1976

OCTOBER

AREA 0037 GALAPAGOS ISLANDS
.75 90.2W

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	1.3	.0	.0	.0	.0	1.3	.0	.0	.0	.0	.0	.0	.0
1-2	.0	23.0	5.6	.0	.0	.0	28.7	.0	2.4	.6	.0	.0	.0	3.0
3-4	.0	10.2	5.4	.5	.0	.0	16.1	.0	1.3	1.1	.0	.0	.0	2.4
5-6	.0	1.8	8.8	.0	.0	.0	10.6	.0	.0	1.7	.0	.0	.0	1.7
7	.0	.5	2.7	.0	.0	.0	3.2	.0	.0	.1	.0	.0	.0	.1
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	37.0	22.4	.5	.0	.0	59.9	.0	3.8	3.5	.0	.0	.0	7.3

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	98.5

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	1.4	1.9	.0	.0	.0	.0	3.3	
1-2	1.4	36.8	7.2	.0	.0	.0	45.5	
3-4	.0	24.9	8.1	.5	.0	.0	33.5	
5-6	.0	1.9	12.0	.0	.0	.0	13.9	
7	.0	1.0	2.9	.0	.0	.0	3.8	
8-9	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	2.9	66.5	30.1	.5	.0	.0	100.0	209

PERIOD: (OVER-ALL) 1949-1976

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	1.0	11.2	16.9	11.5	3.1	1.0	.3	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	134	4
6-7	.0	2.4	8.1	12.6	4.7	1.4	.7	.3	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	93	5
8-9	.0	1.0	1.7	4.1	3.1	.3	.3	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	32	6
10-11	.0	.0	.7	1.4	.0	.7	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	9	6
12-13	.0	.0	.7	2.4	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	10	5
>13	.0	.0	.0	.7	.3	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	4	6
INDET	.0	1.4	2.0	.7	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	13	3
TOTAL	3	47	89	101	35	11	4	3	1	1	0	0	0	0	0	0	0	0	0	295	4
PCT	1.0	15.9	30.2	34.2	11.9	3.7	1.4	1.0	.3	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	

PERIOD: (PRIMARY) 1947-1977
(OVER-ALL) 1902-1977

NOVEMBER

AREA 0037 GALAPAGOS ISLANDS
.95 90.1W

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

PRECIPITATION TYPE										OTHER WEATHER PHENOMENA					
WIND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
N	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
E	.0	.0	7.8	.0	.0	.0	.0	7.8	.0	.0	.0	.0	.0	.0	92.2
SE	.6	2.1	1.5	.0	.0	.0	.0	4.1	1.9	.0	2.4	.0	.0	.0	91.6
S	.4	1.1	3.2	.0	.0	.0	.0	4.7	1.1	.4	3.4	.0	.3	.0	90.2
SW	.0	1.8	1.8	.0	.0	.0	.0	3.7	.5	.0	1.8	.0	.9	.0	93.1
W	.0	.0	.0	.0	.0	.0	.0	.0	.0	14.3	.0	.0	14.3	.0	71.4
NW	.0	.0	.0	.0	.0	.0	.0	.0	.0	20.0	.0	.0	.0	.0	80.0
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
TOT PCT	.4	1.4	2.4	.0	.0	.0	.0	4.3	1.2	.4	2.6	.0	.4	.0	91.1
TOT OBS:	492														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

PRECIPITATION TYPE										OTHER WEATHER PHENOMENA						
HOUR (GMT)	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
0003	.0		1.4	.0	.0	.0	.0	1.4	.0	.0	2.1	.0	1.4	.0		95.2
0609	.0	2.1	4.2	.0	.0	.0	.0	6.3	1.1	.0	4.2	.0	.0	.0		88.4
12015	1.5	2.2	3.7	.0	.0	.0	.0	7.4	2.2	.7	1.5	.0	.0	.0		88.2
18021	.0	1.7	.8	.0	.0	.0	.0	2.5	1.7	.8	3.3	.0	.0	.0		91.7
TOT PCT	.4	1.4	2.4	.0	.0	.0	.0	4.2	1.2	.4	2.6	.0	.4	.0		91.1
TOT OBS:	497															

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)						
	0-3	4-10	11-21	22-33	34-47	48+	00				03	06	09	12	15	18	21
N	.6	.1	.0	.0	.0	.0	.7	2.7	1.1	2.6	.0	.0	.7	.0	.8	.0	
NE	.5	.4	.0	.0	.0	.0	.5	4.8	2.1	.0	.0	.0	.0	.0	.0	.0	
E	.4	2.4	.1	.0	.0	.0	3.0	6.7	2.9	7.2	4.4	9.1	.0	.0	3.7	2.7	
SE	3.2	23.2	4.6	.0	.0	.0	31.0	7.7	34.1	17.8	27.1	23.9	39.4	18.5	31.2	24.3	
S	2.9	33.2	14.6	.0	.0	.0	50.7	9.2	46.4	60.5	56.0	56.8	42.6	61.1	51.2	60.8	
SW	1.4	7.3	3.1	.0	.0	.0	11.8	8.5	10.9	11.8	10.8	10.2	13.0	13.0	12.4	12.2	
W	.6	.4	.0	.0	.0	.0	1.0	4.1	1.8	.0	.0	.0	1.7	5.6	.0	.0	
NW	.5	.2	.0	.0	.0	.0	.2	7.3	.0	.0	.0	.0	.0	1.9	.8	.0	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	1.0	.0	.0	.0	.0	.0	1.0	.0	.6	.0	1.7	.0	2.7	.0	.0	.0	
TOT OBS	69	454	152	0	0	0	675	8.4	154	38	120	22	148	27	129	37	
TOT PCT	10.2	67.3	22.5	.0	.0	.0	100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)			
	0-6	7-16	17-27	28-40	41+						00	06	12	18
N	.7	.0	.0	.0	.0			.7	2.7		1.4	.0	.6	.6
NE	.5	.0	.0	.0	.0			.5	4.8		1.7	.0	.0	.0
E	1.6	1.4	.0	.0	.0			3.0	6.7		3.8	5.1	.0	3.5
SE	11.9	18.6	.5	.0	.0			31.0	7.8		30.9	26.6	36.1	29.7
S	14.4	33.9	2.4	.0	.0			50.7	9.2		49.2	56.2	45.4	53.3
SW	4.4	7.0	.3	.0	.0			11.8	8.5		11.1	10.7	13.0	12.3
W	.7	.3	.0	.0	.0			1.0	4.1		1.4	.0	2.3	.0
NW	.1	.1	.0	.0	.0			.2	7.3		.0	.0	.3	.6
VAR	.0	.0	.0	.0	.0			.0	.0		.0	.0	.0	.0
CALM	1.0	.0	.0	.0	.0			1.0	.0		.5	1.4	2.3	.0
TOT OBS	239	414	22	0	0			675	8.4		192	142	175	166
TOT PCT	35.4	61.3	3.3	.0	.0			100.0			100.0	100.0	100.0	100.0

PERIOD: (PRIMARY) 1947-1977
(OVER-ALL) 1902-1977

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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)				48+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-23	34-47					
00003	.5	10.9	65.6	22.9	.0	.0	.0	.0	8.2	100.0	192
06009	1.4	7.0	66.9	24.6	.0	.0	.0	.0	8.7	100.0	142
12015	2.3	10.9	64.6	22.3	.0	.0	.0	.0	8.0	100.0	175
18021	.0	7.2	72.3	20.5	.0	.0	.0	.0	8.7	100.0	166
TOT	7	62	434	152	.0	.0	.0	.0	8.4		675
PCT	1.0	9.2	67.3	22.5	.0	.0	.0	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS) BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBS	TOTAL OBS	MEAN CLOUD COVER
N	.0	.0	.2	.3		7.5
NE	.3	.3	.1	.0		3.0
E	1.3	.7	.3	.2		2.8
SE	6.2	6.0	13.1	12.4		5.5
S	6.3	6.1	18.5	17.8		5.9
SW	1.1	.9	3.5	2.8		2.9
W	.2	.0	.2	.0		2.0
NW	.0	.0	.3	.0		6.0
VAR	.0	.0	.0	.0		.0
CALM	.3	.3	.3	.3		4.7
TOT OBS	35	50	128	119	352	5.6
TOT PCT	15.6	14.2	36.4	33.8	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8) AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH <5/8 ANY HGT	TOTAL OBS
N	.0	.0	.0	.3	.0	.0	.0	.0	.0	.0	.2	
NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.6	
E	.0	.0	.2	.3	.0	.0	.0	.0	.0	.0	2.0	
SE	.0	.3	.8	5.6	9.9	3.6	1.6	.3	.0	.0	15.5	
S	.0	.0	2.1	7.9	14.1	5.8	2.3	.3	.0	.0	16.3	
SW	.0	.0	.0	1.3	2.5	.2	.9	.0	.0	.0	3.3	
W	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.2	
NW	.0	.0	.0	.0	.3	.0	.0	.0	.0	.0	.0	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.0	.0	.0	.6	.0	.0	.0	.0	.0	.6	
TOT OBS	0	1	39	96	34	17	2	0	0	0	136	392
TOT PCT	.0	.3	3.1	15.6	27.3	9.7	4.8	.6	.0	.0	38.6	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE OF CEILING HEIGHT (NH >4/8) AND VSBY (NH)

CEILING (FEET)	= OR >10			VSBY (NH)			= OR >50YD			= OR >0		
	= OR >10	= OR >5	= OR >2	= OR >1	= OR >1/2	= OR >1/4	= OR >50YD	= OR >50YD	= OR >50YD	= OR >50YD	= OR >50YD	= OR >50YD
= OR >6500	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
= OR >5000	.6	.6	.6	.6	.6	.6	.6	.6	.6	.6	.6	.6
= OR >3500	4.5	5.1	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4
= OR >2000	13.8	14.9	15.2	15.2	15.2	15.2	15.2	15.2	15.2	15.2	15.2	15.2
= OR >1000	36.6	40.8	42.3	42.3	42.3	42.3	42.3	42.3	42.3	42.3	42.3	42.3
= OR >600	51.3	56.6	58.3	58.3	58.3	58.3	58.3	58.3	58.3	58.3	58.3	58.3
= OR >300	53.2	59.4	61.4	61.4	61.4	61.4	61.4	61.4	61.4	61.4	61.4	61.4
= OR >150	53.2	59.7	61.7	61.7	61.7	61.7	61.7	61.7	61.7	61.7	61.7	61.7
= OR >0	53.2	59.7	61.7	61.7	61.7	61.7	61.7	61.7	61.7	61.7	61.7	61.7
TOTAL	189	212	219	219	219	219	219	219	219	219	219	219

TOTAL NUMBER OF OBS: 395

PCT FREQ NH <5/8: 38.3

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	OBS	TOTAL OBS
3.7	11.2	9.6	7.8	6.7	6.4	12.3	13.6	28.6	.0	374

PERIOD: (PRIMARY) 1947-1977
(OVER-ALL) 1902-1977

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.95 90.1W

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1<2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
2<5	PCP	.0	.0	.0	.1	.6	.0	.0	.0	.0	.0	.6	
	NO PCP	.0	.0	.0	.8	.2	.3	.0	.0	.0	.0	1.2	
	TOT %	.0	.0	.0	.9	.7	.3	.0	.0	.0	.0	1.8	
5<10	PCP	.0	.0	.0	.5	1.2	.4	.0	.0	.0	.0	2.1	
	NO PCP	.2	.0	.2	3.6	8.8	2.0	.0	.0	.0	.2	15.0	
	TOT %	.2	.0	.2	4.1	10.0	2.4	.0	.0	.0	.2	17.0	
10+	PCP	.0	.0	.0	.9	.5	.0	.0	.0	.0	.0	1.4	
	NO PCP	.6	.7	2.0	28.9	37.1	8.6	.9	.2	.0	.8	79.7	
	TOT %	.6	.7	2.0	29.8	37.6	8.6	.9	.2	.0	.8	81.1	
TOT OBS													487
TOT PCT		.8	.7	2.2	34.7	48.3	11.2	.9	.2	.0	1.0	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.2	.0	.0	.2	.0	.0	.0	.0	.4	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.2	.0	.0	.2	.0	.0	.0	.0	.4	
2<5	0-3	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.2	
	4-10	.0	.0	.0	.5	.4	.2	.0	.0	.0	.0	1.0	
	11-21	.0	.0	.0	.2	.4	.1	.0	.0	.0	.0	.6	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.9	.7	.3	.0	.0	.0	.0	1.8	
5<10	0-3	.0	.0	.0	.2	.8	.0	.0	.0	.0	.2	1.2	
	4-10	.2	.0	.2	3.4	6.2	1.4	.0	.0	.0	.0	11.4	
	11-21	.0	.0	.0	.4	3.0	.9	.0	.0	.0	.0	4.3	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.2	.0	.2	4.0	9.9	2.3	.0	.0	.0	.2	16.9	
10+	0-3	.6	.1	.2	3.5	2.3	1.4	.6	.0	.0	.8	9.4	
	4-10	.0	.6	1.8	22.4	23.2	4.7	.4	.2	.0	.0	55.2	
	11-21	.0	.0	.0	3.9	9.9	2.4	.0	.0	.0	.0	16.3	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.6	.7	2.0	29.7	37.3	8.5	.9	.2	.0	.8	80.9	
TOT OBS													491
TOT PCT		.8	.7	2.4	34.6	48.1	11.3	.9	.2	.0	1.0	100.0	

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PERIOD: (PRIMARY) 1947-1977
(OVER-ALL) 1902-1977

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.95 90.1W

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET) NH $\geq 4/8$ AND
OCCURRENCE OF NH $\leq 3/8$ BY HOUR

HR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH $\leq 3/8$ ANY HGT	TOTAL OBS
00003	.0	.0	2.9	14.7	25.5	9.8	4.9	.0	.0	.0	57.8	42.2	102
06009	.0	.0	2.9	12.9	31.4	7.1	4.3	.0	.0	.0	58.6	41.4	70
12015	.0	1.0	3.0	21.0	25.0	11.0	4.0	.0	.0	.0	65.0	35.0	100
18021	.0	.0	3.2	12.9	24.7	9.7	5.4	2.2	.0	.0	58.1	41.9	93
TOT	0	1	11	57	96	35	17	2	0	0	219	146	365
PCT	.0	.3	3.0	15.6	26.3	9.6	4.7	.5	.0	.0	60.0	40.0	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NH) BY HOUR

HR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.0	.0	1.4	.7	10.1	87.8	148
06009	.0	.0	.0	2.1	30.9	67.0	94
12015	.0	.0	.0	3.0	13.3	83.7	135
18021	.0	.0	.0	1.7	17.6	80.7	119
TOT	0	0	2	9	83	402	496
PCT	.0	.0	.4	1.8	16.7	81.0	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NH) AND/OR
CEILING HGT (FEET) NH $\geq 4/8$ BY HOUR

HR (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND 5+	NH $\leq 3/8$ AND 5+	TOTAL OBS
00003	.0	3.1	19.4	40.8	39.8	98
06009	.0	2.9	17.4	42.0	40.6	69
12015	.0	4.2	28.1	39.6	32.3	96
18021	.0	3.3	18.5	41.3	40.2	92
TOT	0	12	75	145	135	355
PCT	.0	3.4	21.1	40.8	38.0	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
80/84	.0	.0	.0	.0	.2	.0	.2	.0	2	.4
75/79	.0	.0	.0	.2	1.0	5.7	8.1	1.4	81	16.4
70/74	.0	.0	.0	.0	1.8	11.7	26.7	15.4	275	55.7
65/69	.0	.0	.0	.0	.2	1.4	13.2	12.8	136	27.5
TOTAL	0	0	0	1	16	93	238	146	494	100.0
PCT	.0	.0	.0	.2	3.2	18.8	48.2	29.6		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.0	.0	.0	.0	.4	.0	.0	.0	.0	.0
.0	.0	.9	5.6	8.9	.9	.0	.0	.0	.2
.4	.4	.4	18.3	30.5	5.2	.3	.2	.0	.0
.0	.0	.9	9.1	14.4	2.6	.0	.0	.0	.6
.4	.4	2.1	32.9	54.1	8.7	.3	.2	.0	

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	82	79	76	71	67	65	65	71.3	194
06009	78	77	75	70	67	65	65	70.5	145
12015	78	77	75	70	65	63	62	70.1	177
18021	85	82	78	73	69	68	68	73.5	165
TOT	85	79	77	71	66	65	62	71.4	681

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HR (GMT)	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	.8	3.1	18.3	51.1	26.7	84	131		
06009	.0	.0	.9	11.8	48.2	39.1	87	110		
12015	.0	.0	3.1	11.5	49.2	36.2	86	130		
18021	.0	.0	5.4	32.6	44.2	17.8	82	129		
TOT	0	1	16	88	241	148	85	500		

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PERIOD: (PRIMARY) 1947-1977
(OVER-ALL) 1902-1977

TABLE 17

AREA 0037 GALAPAGOS ISLANDS
.95 90.1WPCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	61 64	65 68	69 72	73 76	77 80	81 84	TOT	W FOG	NO FOG
14/16	.0	.0	.2	.0	.0	.0	1	.0	.2
11/13	.0	.0	.0	.0	.2	.2	2	.0	.4
9/10	.0	.2	.6	.2	.2	.0	6	.0	1.3
7/8	.0	.0	.4	.0	.2	.2	4	.0	.9
6	.0	.2	.2	.0	.9	.0	6	.0	1.3
5	.2	.4	.0	.6	.6	.0	9	.0	1.9
4	.0	.2	.4	1.1	.4	.0	10	.0	2.2
3	.2	.9	2.4	1.5	.4	.0	25	.2	5.2
2	.0	.4	1.9	2.6	.6	.0	26	.4	5.2
1	.2	1.5	5.4	3.2	.4	.0	50	.0	10.8
0	.0	1.9	9.5	3.2	.9	.0	72	1.1	14.5
-1	.0	3.7	9.5	4.8	.4	.0	85	.4	18.0
-2	.0	3.9	7.1	3.9	.2	.0	70	.2	14.9
-3	.0	1.9	5.6	3.7	.2	.0	53	.0	11.5
-4	.0	.4	3.2	.2	.0	.0	18	.4	3.5
-5	.0	.4	1.5	.6	.2	.0	13	.0	2.8
-6	.0	.4	.4	.0	.0	.0	4	.0	.9
-7/-8	.0	.6	.6	.0	.0	.0	6	.0	1.3
-9/-10	.0	.2	.0	.0	.0	.0	1	.0	.2
-11/-13	.0	.0	.2	.0	.0	.0	1	.0	.2
TOTAL	3	81	229	119	28	2	462	13	449
PCT	.6	17.5	49.6	25.8	6.1	.4	100.0	2.8	97.2

PERIOD: (OVER-ALL) 1963-1977

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.9	.0	.0	.0	.0	.9	1.5	2.8	.0	.0	.0	.0	4.3
1-2	.0	.5	.0	.0	.0	.0	.5	1.6	14.4	1.4	.0	.0	.0	17.4
3-4	.0	.0	.0	.0	.0	.0	.0	.0	11.3	2.6	.0	.0	.0	13.9
5-6	.0	.0	.0	.0	.0	.0	.0	.0	2.0	2.1	.0	.0	.0	4.1
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.1
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.5	.0	.0	.0	.5
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	2.3	.0	.0	.0	.0	2.3	3.2	30.3	6.7	.0	.0	.0	40.3

PERIOD: (OVER-ALL) 1963-1977

NOVEMBER

AREA 0037 GALAPAGOS ISLANDS
.95 90.1W

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	S							PCT	SW							PCT	TOTAL PCT
	1-3	4-10	11-21	22-33	34-47	48+			1-3	4-10	11-21	22-33	34-47	48+			
<1	1.8	1.9	.0	.0	.0	.0		3.6	.0	.0	.0	.0	.0	.0		.0	
1-2	1.2	14.7	2.2	.0	.0	.0		18.1	.0	2.3	.6	.0	.0	.0		3.9	
3-4	.4	11.9	7.2	.0	.0	.0		19.5	.1	1.1	.9	.0	.0	.0		2.1	
5-6	.0	2.6	3.4	.0	.0	.0		6.0	.0	.6	1.1	.0	.0	.0		1.6	
7	.0	.9	.4	.0	.0	.0		1.3	.0	.0	.0	.0	.0	.0		.0	
8-9	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
10-11	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
12	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
13-16	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
17-19	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
20-22	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
23-25	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
26-32	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
33-40	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
41-48	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
49-60	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
61-70	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
71-86	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
87+	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
TOT PCT	3.3	32.0	13.2	.0	.0	.0		48.5	.1	4.9	2.6	.0	.0	.0		7.6	

HGT	W							PCT	NW							PCT	TOTAL PCT
	1-3	4-10	11-21	22-33	34-47	48+			1-3	4-10	11-21	22-33	34-47	48+			
<1	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
1-2	.0	.4	.0	.0	.0	.0		.4	.0	.0	.0	.0	.0	.0		.0	
3-4	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
5-6	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
7	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
8-9	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
10-11	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
12	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
13-16	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
17-19	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
20-22	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
23-25	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
26-32	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
33-40	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
41-48	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
49-60	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
61-70	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
71-86	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
87+	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
TOT PCT	.0	.4	.0	.0	.0	.0		.4	.0	.0	.0	.0	.0	.0		.0	99.1

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	4.6	5.6	.0	.0	.0	.0	10.2	
1-2	2.8	33.3	4.2	.0	.0	.0	40.3	
3-4	.9	24.5	10.6	.0	.0	.0	36.1	
5-6	.0	5.1	6.5	.0	.0	.0	11.6	
7	.0	.9	.5	.0	.0	.0	1.4	
8-9	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.5	.0	.0	.0	.5	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	8.3	69.4	22.2	.0	.0	.0	100.0	216

PERIOD: (OVER-ALL) 1949-1977

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	2.5	13.2	24.5	8.8	3.5	.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	169
6-7	.0	3.1	3.7	7.9	4.4	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	68
8-9	.0	.3	.6	4.7	2.2	.6	.3	.9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	31
10-11	.0	.9	1.6	1.3	.6	.3	.0	.0	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	16
12-13	.0	.0	1.9	.3	.3	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	9
>13	.0	.0	.0	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1
INDET	2.5	1.6	1.9	.9	.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	24
TOTAL	16	61	115	76	37	7	2	3	0	0	1	0	0	0	0	0	0	0	0	0	318
PCT	5.0	19.2	36.2	23.9	11.6	2.2	.6	.9	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0

DECEMBER

PERIOD: (PRIMARY) 1946-1977
(OVER-ALL) 1884-1977

AREA 0037 GALAPAGOS ISLANDS
.95 90.0M

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA						
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST SIG WEA
N	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	85.7
E	11.4	.0	11.4	.0	.0	.0	.0	11.4	.0	.0	14.3	.0	.0	80.0
SE	.0	2.6	2.2	.0	.0	.0	.0	4.8	2.1	.0	8.6	.0	.0	91.2
S	1.6	.4	3.4	.0	.0	.0	.0	5.4	.7	.0	3.1	.0	.0	90.8
SW	1.4	2.8	5.6	.0	.0	.0	.0	9.7	3.5	.0	.0	.0	.0	86.8
W	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
NW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	16.7	.0	.0	.0	.0	16.7	.0	.0	.0	.0	.0	83.3
TOT PCT	1.1	1.4	3.4	.0	.0	.0	.0	5.7	1.4	.0	2.5	.0	.0	90.4
TOT OBS:	438													

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA						
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST SIG WEA
00003	.0	1.0	.0	.0	.0	.0	.0	1.0	.0	.0	1.0	.0	.0	98.0
06009	4.9	1.2	8.5	.0	.0	.0	.0	12.2	2.4	.0	4.9	.0	.0	80.5
12015	2.2	2.2	7.2	.0	.0	.0	.0	11.5	1.4	.0	1.4	.0	.0	85.6
18021	.0	.7	.0	.0	.0	.0	.0	.7	1.5	.0	3.0	.0	.0	94.8
TOT PCT	1.5	1.3	3.7	.0	.0	.0	.0	6.1	1.3	.0	2.4	.0	.0	90.2
TOT OBS:	457													

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)						
	0-3	4-10	11-21	22-33	34-47	48+					00	03	06	09	12	15	18
N	.3	.0	.0	.0	.0	.0		.3	1.5	.0	.0	.0	.0	.0	.5	.0	.7
NE	.1	.2	.0	.0	.0	.0		.3	3.4	.0	.0	.0	.0	.0	.5	.0	3.3
E	.7	1.2	.0	.0	.0	.0		1.9	5.0	.0	.0	1.1	8.3	4.2	.0	1.9	.0
SE	3.1	27.4	4.1	.0	.0	.0		34.6	7.4	32.6	35.4	33.9	12.5	38.0	27.9	37.8	25.0
S	5.2	36.4	9.1	1.2	.0	.0		51.8	8.2	58.6	47.9	48.9	79.2	46.7	60.3	49.0	63.3
SW	1.5	5.3	1.8	.0	.0	.0		8.6	7.4	5.7	12.5	14.0	.0	7.3	5.9	8.7	8.3
W	.1	.5	.0	.0	.0	.0		.6	4.7	1.0	4.2	.8	.0	.5	.0	.0	.0
NW	.0	.4	.0	.0	.0	.0		.4	6.3	.0	.0	.3	.0	.0	5.9	.7	.0
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	1.4	.0	.0	.0	.0	.0		1.4	.0	2.1	.0	1.1	.0	2.2	.0	1.4	.0
TOT OBS	70	396	83	7	0	0		556	7.6	96	24	93	12	187	17	147	30
TOT PCT	12.6	71.2	14.9	1.3	.0	.0		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)					TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)			
	0-6	7-16	17-27	28-40	41+				00	03	09	18
N	.3	.0	.0	.0	.0	.0	.3	1.5	.0	.0	.5	.6
NE	.3	.0	.0	.0	.0	.0	.3	3.4	.0	.0	.5	.6
E	1.2	.7	.0	.0	.0	.0	1.9	5.0	.0	1.9	3.7	1.6
SE	15.2	19.1	.4	.0	.0	.0	34.6	7.4	33.1	31.4	36.9	35.6
S	21.2	28.5	1.3	.8	.0	.0	51.8	8.2	56.5	52.4	48.2	51.4
SW	4.5	3.7	.3	.0	.0	.0	8.6	7.4	7.1	12.4	7.1	8.6
W	.4	.2	.0	.0	.0	.0	.6	4.7	1.7	.7	.5	.0
NW	.2	.2	.0	.0	.0	.0	.4	6.3	.0	.2	.6	.6
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	1.4	.0	.0	.0	.0	.0	1.4	.0	1.7	1.0	1.9	1.1
TOT OBS	249	291	11	5	0	556	7.6		120	105	194	177
TOT PCT	44.8	52.3	2.0	.9	.0	100.0			100.0	100.0	100.0	100.0

PERIOD: (PRIMARY) 1946-1977
(OVER-ALL) 1884-1977

DECEMBER

AREA 0037 GALAPAGOS ISLANDS
.9S 90.0W

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)			48+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47				
0000	1.7	10.8	69.2	15.0	3.3	.0	.0	8.4	100.0	120
0600	1.0	13.2	69.3	12.4	1.9	.0	.0	7.2	100.0	105
1200	1.9	9.7	77.9	10.4	.0	.0	.0	6.8	100.0	154
1800	1.1	10.2	67.8	20.3	.6	.0	.0	7.9	100.0	177
TOT	8	62	396	83	7	0	0	7.6		556
PCT	1.4	11.2	71.2	14.9	1.3	.0	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	.0	.0	.2	.0		6.0
NE	.0	.0	.2	.4		7.4
E	.0	.2	.7	.8		6.5
SE	7.4	5.8	11.1	14.8		5.5
S	10.6	7.6	15.6	15.7		5.3
SW	2.4	.5	2.4	1.6		4.7
W	.0	.2	.0	.0		3.0
NW	.0	.0	.0	.0		.0
VAR	.0	.0	.0	.0		.0
CALM	.3	.3	.6	.6		5.5
TOT OBS	68	48	101	111	328	5.4
TOT PCT	20.7	14.6	30.8	33.8	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8)
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH <5/8 ANY HGT	TOTAL OBS
N	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	
NE	.0	.0	.0	.1	.0	.0	.3	.0	.0	.0	.2	
E	.0	.0	.2	.5	.3	.0	.0	.0	.0	.0	.6	
SE	.0	.0	.9	4.1	9.4	4.5	.9	.3	.0	.3	18.7	
S	.0	.0	1.2	8.9	9.5	4.7	1.7	.6	.0	.3	22.6	
SW	.0	.0	.1	.8	1.0	.5	.2	.0	.0	.0	4.4	
W	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	
NW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.0	.0	.6	.6	.0	.0	.0	.0	.0	.6	
TOT OBS	0	0	8	49	68	32	10	3	0	2	156	328
TOT PCT	.0	.0	2.4	14.9	20.7	9.8	3.0	.9	.0	.6	47.6	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE
OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)							
	= OR >10	= OR >5	= OR >2	= OR >1	= OR >1/2	= OR >1/4	= OR >50YD	= OR >0
= OR >6500	.9	.9	.9	.9	.9	.9	.9	.9
= OR >5000	1.2	1.7	1.7	1.7	1.7	1.7	1.7	1.7
= OR >3500	4.7	5.2	5.2	5.2	5.2	5.2	5.2	5.2
= OR >2000	13.4	14.8	14.8	14.8	14.8	14.8	14.8	14.8
= OR >1000	32.6	36.0	36.3	36.3	36.3	36.3	36.3	36.3
= OR >600	44.5	50.0	50.9	50.9	50.9	50.9	50.9	50.9
= OR >300	46.5	52.0	52.9	53.2	53.2	53.2	53.2	53.2
= OR >150	46.8	52.3	53.2	53.5	53.5	53.5	53.5	53.5
= OR >0	46.8	52.3	53.2	53.5	53.5	53.5	53.5	53.5
TOTAL	161	180	183	184	184	184	184	184

TOTAL NUMBER OF OBSI 344

PCT FREQ NH <5/8 46.5

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	OBSCD	TOTAL OBS
5.7	15.6	10.8	9.7	5.1	3.2	8.9	13.5	27.5	.0	371

PERIOD: (PRIMARY) 1946-1977
(OVER-ALL) 1884-1977

DECEMBER

AREA 0037 GALAPAGOS ISLANDS
.95 90.0W

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1<2	PCP	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.2	.2
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.2	.2
2<5	PCP	.0	.0	.0	.0	.0	.2	.0	.0	.0	.2	.5	.5
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.2	.0	.0	.0	.2	.5	.5
5<10	PCP	.0	.0	.2	.5	1.9	.3	.0	.0	.0	.0	3.0	3.0
	NO PCP	.0	.1	.5	4.1	8.8	1.1	.4	.1	.0	.0	15.1	15.1
	TOT %	.0	.1	.7	4.6	10.7	1.5	.4	.1	.0	.0	18.0	18.0
10+	PCP	.0	.0	.0	1.0	.9	.2	.0	.0	.0	.0	2.1	2.1
	NO PCP	.2	.3	1.3	30.0	39.4	6.3	.4	.2	.0	1.1	79.2	79.2
	TOT %	.2	.3	1.3	30.9	40.3	6.5	.4	.2	.0	1.1	81.3	81.3
TOT OBS													438
TOT PCT		.2	.4	2.0	35.8	51.0	8.2	.8	.3	.0	1.4	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.2	.2
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.2	.2
2<5	0-3	.0	.0	.0	.0	.0	.2	.0	.0	.0	.2	.5	.5
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.2	.0	.0	.0	.2	.5	.5
5<10	0-3	.0	.1	.4	.9	1.7	.2	.2	.1	.0	.0	3.4	3.4
	4-10	.0	.0	.3	3.2	7.2	.9	.2	.0	.0	.0	11.9	11.9
	11-21	.0	.0	.0	.6	1.8	.3	.0	.0	.0	.0	2.7	2.7
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.1	.7	4.6	10.7	1.5	.4	.1	.0	.0	18.0	18.0
10+	0-3	.2	.1	.5	2.3	3.3	.7	.0	.0	.0	1.1	8.2	8.2
	4-10	.0	.2	.7	24.4	29.6	4.4	.4	.2	.0	.0	60.0	60.0
	11-21	.0	.0	.0	4.2	7.2	1.4	.0	.0	.0	.0	12.8	12.8
	22+	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.2	.2
	TOT %	.2	.3	1.3	30.9	40.3	6.3	.4	.2	.0	1.1	81.3	81.3
TOT OBS													438
TOT PCT		.2	.4	2.0	35.8	51.0	8.2	.8	.3	.0	1.4	100.0	

DECEMBER

PERIOD: (PRIMARY) 1946-1977
(OVER-ALL) 1884-1977AREA 0037 GALAPAGOS ISLANDS
.95 90.0M

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NM >4/8) AND
OCCURRENCE OF NM <5/8 BY HOUR

HOURL (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NM <5/8 ANY MGT	TOTAL OBS
00&03	.0	.0	2.5	10.0	20.0	12.5	6.3	.0	1.3	.0	52.5	47.5	80
06&09	.0	1.7	5.0	13.3	10.0	8.3	3.3	3.3	.0	.0	45.0	55.0	60
12&15	.0	.0	.8	19.3	27.7	9.2	2.5	.8	.0	.8	61.3	38.7	119
18&21	.0	.0	2.0	11.1	19.2	7.1	2.0	.0	.0	1.0	42.4	57.6	99
TOT	0	1	8	50	74	33	12	3	1	2	184	174	358
PCT	.0	.3	2.2	14.0	20.7	9.2	3.4	.8	.3	.6	51.4	48.6	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOURL (GMT)	<1/2	1/2<1	1<2	2<3	3<10	10+	TOTAL OBS
00&03	.0	.0	.0	.0	11.9	88.1	101
06&09	.0	.0	1.2	.0	26.8	72.0	82
12&15	.0	.0	.0	2.2	15.1	82.7	139
18&21	.0	.0	.0	.0	19.3	80.7	135
TOT	0	0	1	3	81	372	457
PCT	.0	.0	.2	.7	17.7	81.4	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR
CEILING HGT (FEET, NM >4/8), BY HOUR

HOURL (GMT)	<150 <50VD	<600 <1	<1000 <5	1000+ AND5+	NM <5/8 AND 5+	TOTAL OBS
00&03	.0	2.5	12.7	40.5	46.8	79
06&09	.0	6.8	20.3	25.4	54.2	59
12&15	.0	.9	23.1	44.4	32.4	108
18&21	.0	2.0	13.3	29.6	57.1	98
TOT	0	9	60	124	160	344
PCT	.0	2.6	17.4	36.0	46.5	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
80/84	.0	.0	.0	.0	.2	.7	.4	.0	6	1.3
75/79	.0	.0	.0	.2	.0	8.7	19.2	3.7	119	25.8
70/74	.0	.0	.0	.0	1.1	4.1	30.8	28.0	295	64.0
65/69	.0	.0	.0	.0	.0	.0	2.4	6.5	41	8.9
TOTAL	0	0	0	1	6	62	216	176	461	100.0
PCT	.0	.0	.0	.2	1.3	13.4	46.9	38.2		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.0	.0	.0	.4	.7	.2	.0	.0	.0	.0
.2	.0	.4	11.3	11.7	1.7	.2	.3	.0	.0
.0	.2	.9	21.8	33.5	6.5	.0	.0	.0	1.1
.0	.1	.5	3.4	3.9	.5	.2	.0	.0	.4
.2	.3	1.9	36.9	49.7	8.8	.3	.3	.0	1.5

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOURL (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00&03	83	81	79	73	69	69	68	73.5	124
06&09	80	78	77	72	69	68	68	72.4	114
12&15	79	78	76	72	68	67	67	72.1	159
18&21	91	83	80	75	71	70	69	74.9	179
TOT	91	81	79	73	69	67	67	73.3	576

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOURL (GMT)	0-29	30-39	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00&03	.0	.0	.0	7.1	60.2	32.7	87	98
06&09	.0	1.0	.0	4.0	32.0	63.0	90	100
12&15	.0	.0	.8	6.3	37.5	55.5	89	128
18&21	.0	.0	3.2	27.9	54.5	14.3	83	134
TOT	0	1	6	62	223	188	87	480

DECEMBER

PERIOD: (PRIMARY) 1946-1977
(OVER-ALL) 1884-1977

AREA 0037 GALAPAGOS ISLANDS
.95 90.0W

TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIP	65 68	69 72	73 76	77 80	81 84	TOT	N FOG	WD FOG
14/16	.0	.0	.2	.0	.0	1	.0	.2
11/13	.0	.0	.0	.0	.2	1	.0	.2
9/10	.0	.5	.5	.5	.5	8	.0	1.9
7/8	.0	.0	.5	.7	.2	6	.0	1.4
6	.0	.2	.5	.7	.0	6	.0	1.4
5	.0	.2	.7	.2	.0	5	.2	.9
4	.0	.9	1.9	.2	.0	13	.0	3.1
3	.0	1.2	3.8	1.4	.0	27	.2	6.1
2	.0	1.7	4.2	.7	.2	29	.0	6.8
1	.5	5.4	6.4	1.7	.0	59	.2	13.7
0	.7	10.1	9.7	1.4	.0	93	1.4	20.5
-1	.7	10.4	8.3	.7	.0	85	.2	19.8
-2	1.4	3.1	2.5	1.4	.0	40	.2	9.2
-3	.0	3.1	2.6	.0	.0	24	.0	5.7
-4	.0	1.4	.9	.2	.0	11	.0	2.6
-5	.0	.9	1.2	.0	.0	9	.0	2.1
-6	.0	.5	.2	.0	.0	3	.0	.7
-7/-8	.0	.5	.2	.0	.0	3	.0	.7
-9/-10	.0	.0	.2	.0	.0	1	.0	.2
TOTAL	14	170	193	42	5	424	11	413
PCT	3.3	40.1	45.5	9.9	1.2	100.0	2.6	97.4

PERIOD: (OVER-ALL) 1963-1977

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.5	.0	.0	.0	.0	.5
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.0	.0	.0	.0	.0	.0	.1	.5	.0	.0	.0	.0	.6

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.7	.0	.0	.0	.0	.0	.7	1.8	1.4	.0	.0	.0	.0	3.2
1-2	.4	1.2	.0	.0	.0	.0	1.5	.7	16.6	.1	.0	.0	.0	17.5
3-4	.0	.0	.0	.0	.0	.0	.0	.8	10.0	4.8	.0	.0	.0	15.4
5-6	.0	.0	.0	.0	.0	.0	.0	.0	1.7	.7	.0	.0	.0	2.4
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.5	.0	.0	.0	.5
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.1	1.2	.0	.0	.0	.0	2.2	3.1	29.7	6.1	.0	.0	.0	38.9

PERIOD: (OVER-ALL) 1963-1977

DECEMBER

AREA 0037 GALAPAGOS ISLANDS
95 90.0W

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	S							PCT	SW							PCT
	1-3	4-10	11-21	22-33	34-47	48+			1-3	4-10	11-21	22-33	34-47	48+		
<1	3.1	1.9	.0	.0	.0	.0		5.0	.0	.0	.0	.0	.0	.0		.0
1-2	.8	22.6	.8	.0	.0	.0		24.3	.0	3.1	.5	.0	.0	.0		3.5
3-4	.4	8.6	4.0	.0	.0	.0		13.0	.0	.7	1.1	.0	.0	.0		1.8
5-6	.0	2.4	3.1	.0	.0	.0		5.4	.0	.2	.9	.0	.0	.0		1.2
7	.0	.0	1.4	.0	.0	.0		1.4	.0	.0	.0	.0	.0	.0		.0
8-9	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
10-11	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
12	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
13-16	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
17-19	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
20-22	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
23-25	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
26-32	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
33-40	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
41-48	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
49-60	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
61-70	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
71-86	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
87+	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
TOT PCT	4.2	35.5	9.3	.0	.0	.0		49.1	.0	4.0	2.5	.0	.0	.0		6.5

HGT	W							PCT	NW							PCT	TOTAL PCT
	1-3	4-10	11-21	22-33	34-47	48+			1-3	4-10	11-21	22-33	34-47	48+			
<1	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
1-2	.0	.4	.0	.0	.0	.0		.4	.0	.0	.0	.0	.0	.0		.0	
3-4	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
5-6	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
7	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
8-9	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
10-11	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
12	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
13-16	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
17-19	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
20-22	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
23-25	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
26-32	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
33-40	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
41-48	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
49-60	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
61-70	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
71-86	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
87+	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
TOT PCT	.0	.4	.0	.0	.0	.0		.4	.0	.0	.0	.0	.0	.0		.0	97.6

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	9.5	3.6	.0	.0	.0	.0	13.2	
1-2	2.7	42.2	1.4	.0	.0	.0	47.3	
3-4	.9	18.6	9.5	.0	.0	.0	29.1	
5-6	.0	4.1	4.5	.0	.0	.0	8.6	
7	.0	.0	1.8	.0	.0	.0	1.8	
8-9	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	13.2	69.5	17.3	.0	.0	.0	100.0	220

PERIOD: (OVER-ALL) 1949-1977

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	3.2	17.7	23.1	9.2	2.2	.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	177	3
6-7	.3	2.2	6.3	7.9	4.4	.6	.3	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	71	5
8-9	.0	.9	1.3	4.1	1.6	.3	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	27	5
10-11	.0	.0	.6	.3	.3	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	5	6
12-13	.0	.0	1.6	.6	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	8	4
>13	.0	.0	.0	.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2	5
INDET	1.3	3.2	2.8	.9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	26	4
TOTAL	15	76	113	75	28	5	1	3	0	0	0	0	0	0	0	0	0	0	0	316	
PCT	4.7	24.1	35.8	23.7	8.9	1.6	.3	.9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	

PERIOD: (PRIMARY) 1942-1978
(OVER-ALL) 1867-1978

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.85 90.1W

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SNOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
N	2.8	.0	2.0	.0	.0	.0	.0	4.8	.0	.0	.0	.0	4.3	.0	90.8
NE	.4	.5	2.5	.0	.0	.0	.0	3.4	.2	.0	4.6	1.2	2.3	.0	88.2
E	1.4	.8	2.2	.0	.0	.0	.0	3.4	.2	.6	2.3	.0	4.6	.0	88.9
SE	.8	1.5	1.8	.0	.0	.0	.0	4.0	1.6	.2	1.6	*	1.1	.0	91.4
S	1.0	2.4	2.6	.0	.0	.0	.0	5.9	1.9	.2	2.4	*	1.3	.0	88.1
SW	1.8	3.6	3.2	.0	.0	.0	.0	8.6	2.1	.2	2.0	.0	1.0	.0	86.1
W	.8	.8	.7	.0	.0	.0	.0	2.4	.7	1.2	.0	.0	3.2	.0	92.5
NW	.8	.0	1.0	.0	.0	.0	.0	1.8	1.2	1.7	.0	.0	.4	.0	86.6
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	1.9	1.1	2.3	.0	.0	.0	.0	5.3	1.2	.4	2.6	.7	1.8	.0	88.1
TOT PCT	1.0														
TOT OBS:	6393	1.9	2.3	.0	.0	.0	.0	5.2	1.6	.2	2.1	.1	1.4	.0	89.4

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SNOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
00003	.9	1.4	.8	.0	.0	.0	.0	3.0	1.5	.1	1.5	.1	1.8	.0	92.0
06009	1.5	1.7	4.2	.0	.0	.0	.0	7.2	1.7	.8	3.6	.0	1.2	.0	85.5
12015	1.3	2.2	4.0	.0	.0	.0	.0	7.3	2.3	.2	1.8	.1	1.1	.0	87.3
18021	.6	2.2	1.2	.0	.0	.0	.0	4.0	.9	.1	2.2	.1	1.7	.0	90.9
TOT PCT	1.0														
TOT OBS:	6721	1.9	2.4	.0	.0	.0	.0	5.2	1.6	.2	2.1	.1	1.5	.0	89.3

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	48+					00	03	06	09	12	15	18	21
N	.3	.4	.1	.0	.0	.0		.8	5.3	.8	1.3	.5	.3	.9	.1	1.0	.7	
NE	.7	1.6	.2	*	.0	.0		2.5	4.4	2.5	1.9	2.7	1.7	2.1	1.8	2.6	4.4	
E	1.6	5.5	.8	*	.0	.0		7.8	6.7	7.4	10.3	6.6	7.6	7.0	8.8	8.4	7.1	
SE	4.3	28.0	5.7	.1	*	.0		38.1	7.5	39.1	39.5	36.6	28.0	41.2	35.9	37.8	31.7	
S	3.1	24.3	9.0	.2	*	.0		36.6	8.1	35.7	32.9	38.9	48.9	34.8	38.3	35.9	42.9	
SW	1.2	5.0	1.3	*	.0	.0		7.5	7.2	7.7	8.1	7.8	8.5	6.6	8.7	7.0	7.3	
W	.6	1.0	.2	*	.0	.0		1.8	5.5	2.4	2.1	.6	1.6	1.6	1.7	2.5	1.8	
NW	.4	1.0	.2	.0	.0	.0		1.5	5.7	1.7	2.2	.5	.4	.6	2.6	1.6	2.6	
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	3.4							3.4	.0	2.7	1.5	5.9	3.0	5.2	2.0	2.8	1.4	
TOT OBS							7753		7.4	1492	534	1216	185	1438	561	1969	358	
TOT PCT	15.6	66.7	17.4	.3	*	.0		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)				41+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)			
	0-6	7-16	17-27	28-40					00	06	12	18
N	.5	.3	.0	.0	.0	.0	.8	5.3	.8	.5	.7	1.0
NE	1.8	.6	*	.0	.0	.0	2.5	4.4	2.3	2.5	2.1	2.8
E	4.8	3.0	.1	.0	.0	.0	7.8	6.7	8.1	6.7	7.7	8.2
SE	16.4	21.0	.6	*	.0	.0	38.1	7.5	39.5	35.7	39.9	36.7
S	12.4	22.7	1.4	.1	.0	.0	36.6	8.1	35.0	40.1	35.6	37.1
SW	3.8	3.5	.2	*	.0	.0	7.5	7.2	7.8	7.8	7.2	7.2
W	1.3	.5	*	.0	.0	.0	1.8	5.5	2.2	.7	1.6	2.4
NW	1.0	.6	.0	.0	.0	.0	1.5	5.7	1.9	.5	1.1	2.0
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	3.4						3.4	.0	2.3	5.5	4.2	2.6
TOT OBS						7753		7.4	2026	1401	1999	2327
TOT PCT	45.5	52.1	2.3	.1	.0		100.0		100.0	100.0	100.0	100.0

PERIOD: (PRIMARY) 1942-1978
(OVER-ALL) 1867-1978

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TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)			48+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-23	24-47				
00003	2.3	11.8	69.0	16.3	.5	.0	.0	7.5	100.0	2026
06009	5.5	10.1	67.3	16.9	.2	.0	.0	7.3	100.0	1401
12015	4.2	16.1	66.7	12.8	.1	.1	.0	6.8	100.0	1999
18021	2.6	10.6	64.1	22.5	.3	.0	.0	8.0	100.0	2327
TOT								7.4		7753
PCT	3.4	12.2	66.7	17.4	.3	*	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	.2	.1	.3	.1		3.5
NE	1.1	.4	.6	.4		3.8
E	2.7	1.5	1.7	1.3		4.7
SE	8.8	7.7	13.4	10.5		5.0
S	6.2	5.8	13.0	11.9		5.2
SW	1.2	1.1	2.4	1.5		4.9
W	.3	.3	.6	.3		4.3
NW	.2	.2	.3	.2		3.7
VAR	.0	.0	.0	.0		.0
CALM	1.3	.8	1.0	.8		4.9
TOT OBS					4105	5.1
TOT PCT	22.1	17.9	33.1	26.9	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8)
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

	000 149	150 299	300 599	400 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH <5/8 ANY HGT	TOTAL OBS
N	.0	.0	*	.1	.1	*	*	.0	*	.0	.4	
NE	.1	.0	*	.2	.3	.1	.1	.0	*	*	1.8	
E	*	.0	.2	.6	.7	.4	.2	*	.0	*	4.9	
SE	*	.1	.7	4.7	8.3	3.6	1.2	.2	.1	.2	21.4	
S	.1	.1	.9	3.2	8.9	3.8	1.3	.4	*	.2	16.0	
SW	*	*	.1	.6	1.2	.5	.3	.0	*	.1	3.3	
W	.0	*	*	.1	.3	.1	*	*	.0	*	.9	
NW	.0	.0	*	.1	.1	.1	*	.0	.0	.0	.5	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	*	.1	*	.4	.6	.1	*	*	.0	*	2.6	
TOT OBS	.2	.4	2.0	11.8	20.5	8.7	3.2	.7	.2	.6	51.8	4105
TOT PCT												100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE
OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)				OR			
	>10	>5	>2	>1	>1/2	>1/4	>50YD	>0
>4500	.8	.8	.8	.8	.8	.8	.8	.8
>3500	1.3	1.4	1.4	1.4	1.5	1.5	1.5	1.5
>2500	3.8	4.6	4.7	4.7	4.7	4.7	4.7	4.7
>2000	11.3	13.2	13.3	13.3	13.3	13.3	13.3	13.3
>1000	28.9	33.4	33.9	33.9	34.0	34.0	34.0	34.0
>600	37.8	44.7	45.5	45.6	45.7	45.7	45.7	45.7
>300	39.0	46.5	47.5	47.6	47.6	47.6	47.6	47.6
>150	39.2	46.8	47.8	47.9	48.0	48.0	48.0	48.0
>0	39.2	46.9	47.9	48.0	48.1	48.2	48.2	48.2

TOTAL NUMBER OF OBS: 4346

PCT FREQ NH <5/8: 51.8

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

	0	1	2	3	4	5	6	7	8 OBSCD	TOTAL OBS
	6.9	13.0	13.7	10.6	7.4	5.8	7.9	11.7	22.9	4554

PERIOD: (PRIMARY) 1942-1978
(OVER-ALL) 1867-1978

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.05 90.1W

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF PRECIPITATION WITH VARYING VALUES OF VISIBILITY												
VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT TOTAL OBS
<1/2	PCP	.0	.0	.0	*	*	.0	.0	.0	.0	.0	*
	NO PCP	.0	*	*	*	*	.0	.0	.0	.0	*	.1
	TOT %	.0	*	*	*	*	.0	.0	.0	.0	*	.1
1/2<1	PCP	*	*	.0	*	.1	*	.0	.0	.0	*	.1
	NO PCP	.0	.0	.0	*	*	.0	.0	.0	.0	*	.1
	TOT %	*	*	.0	.1	.1	.0	.0	.0	.0	*	.3
1<2	PCP	.0	*	.0	*	*	.0	.0	.0	.0	.0	.1
	NO PCP	.0	.0	*	*	.1	*	.0	.0	.0	.0	.1
	TOT %	.0	*	*	.1	.1	.0	.0	.0	.0	.0	.2
2<5	PCP	*	.0	.0	.1	.2	*	*	*	.0	*	.4
	NO PCP	.0	*	.1	.3	.2	.1	*	*	.0	.1	.7
	TOT %	*	*	.1	.4	.4	.1	*	*	.0	.1	1.1
5<10	PCP	*	*	.1	.8	1.4	.4	*	*	.0	.1	2.9
	NO PCP	.1	.4	1.2	5.6	6.3	1.3	.2	.1	.0	.4	15.6
	TOT %	.1	.4	1.3	6.4	7.8	1.7	.2	.1	.0	.5	18.5
10+	PCP	*	*	.1	.7	.6	.2	*	*	.0	*	1.6
	NO PCP	.6	1.9	6.3	31.5	26.5	5.4	1.7	1.6	.0	2.6	78.2
	TOT %	.6	2.0	6.4	32.1	27.1	5.5	1.7	1.6	.0	2.7	79.8
TOT OBS		6343										
TOT PCT		.7	2.5	7.8	39.1	35.5	7.4	2.0	1.7	.0	3.3	100.0

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED WITH VARYING VALUES OF VISIBILITY												
VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT TOTAL OBS
<1/2	0-3	.0	*	.0	.0	*	.0	.0	.0	.0	*	.1
	4-10	.0	*	*	*	*	.0	.0	.0	.0	*	.1
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	*	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	*	.0
	TOT %	.0	*	*	*	.1	.0	.0	.0	.0	*	.2
1/2<1	0-3	.0	.0	.0	*	.0	.0	.0	.0	.0	*	.1
	4-10	*	*	.0	*	.1	*	.0	.0	.0	*	.2
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	*	*
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	*	.0
	TOT %	*	*	.0	.1	.1	*	.0	.0	.0	*	.3
1<2	0-3	*	.0	*	.0	*	.0	.0	.0	.0	.0	*
	4-10	.0	*	*	.1	.1	*	.0	.0	.0	.0	.2
	11-21	.0	.0	*	*	.0	.0	.0	.0	.0	*	*
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	*	*	.1	.1	.1	*	.0	.0	.0	.0	.3
2<5	0-3	.0	*	.0	.1	*	*	*	*	.0	.1	.3
	4-10	*	*	.1	.2	.3	*	*	*	.0	.0	.7
	11-21	.0	.0	.0	.1	.1	*	.0	.0	.0	.0	.2
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	*	*	.1	.4	.4	.1	*	*	.0	.1	1.1
5<10	0-3	.0	.1	.3	.9	.7	.2	.1	*	.0	.3	2.8
	4-10	.1	.3	.9	4.7	5.3	1.1	.1	*	.0	.0	12.5
	11-21	*	*	.1	.8	1.8	.3	*	*	.0	.0	3.1
	22+	.0	*	.0	*	*	.0	.0	.0	.0	.0	*
	TOT %	.1	.4	1.3	6.4	7.7	1.6	.2	.1	.0	.5	18.4
10+	0-3	.2	.6	1.3	3.7	2.4	1.0	.6	.4	.0	2.7	12.9
	4-10	.3	1.2	4.3	23.2	17.6	3.6	1.0	.0	.0	.0	52.2
	11-21	.1	.1	.7	5.1	7.1	1.0	.2	.2	.0	.0	14.5
	22+	.0	.0	*	*	*	*	*	.0	.0	.0	.2
	TOT %	.7	2.0	6.3	32.1	27.1	5.3	1.7	1.6	.0	2.7	79.7
TOT OBS		6369										
TOT PCT		.8	2.5	7.8	39.1	35.5	7.4	2.0	1.7	.0	3.3	100.0

PERIOD: (PRIMARY) 1942-1978
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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NM >4/8) AND
OCCURRENCE OF NM <3/8 BY HOUR

HOURL (GMT)	000 149	150 299	300 399	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <3/8 ANY HGT	TOTAL OBS
00003	.1	.1	2.1	10.0	19.1	8.0	3.2	.6	.3	.3	43.8	56.2	1203
06009	.2	.4	2.0	11.0	19.9	7.8	2.0	.7	.3	1.0	46.0	54.0	907
12015	.4	.6	2.1	15.4	23.2	11.5	3.1	.6	.1	.7	57.6	42.4	1175
18021	.1	.4	1.6	9.1	18.8	6.6	3.7	.8	.1	.5	41.7	58.3	1174
TOT PCT	.2	.4	1.9	11.4	20.3	8.5	3.2	.6	.2	.6	47.3	52.7	4459 100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOURL (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	*	.4	.5	.9	15.2	82.9	1788
06009	.4	.3	.3	1.0	25.9	72.2	1187
12015	.2	.3	.1	1.8	17.2	80.4	1787
18021	*	.3	.3	.9	18.6	79.8	1927
TOT PCT	.2	.3	.3	1.2	18.5	79.6	6589 100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR
CEILING HGT (FEET, NM >4/8) BY HOUR

HOURL (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND 5+	NH <3/8 AND 5+	TOTAL OBS
00003	.1	2.6	13.3	31.9	54.8	1164
06009	.2	2.9	14.4	32.5	53.0	887
12015	.4	3.6	20.9	38.9	40.2	1132
18021	.1	2.1	11.9	30.2	57.9	1163
TOT PCT	.2	2.8	15.2	33.4	51.4	4346 100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
90/94	.0	.0	.0	.0	*	.0	*	.0	*	*
85/89	.0	.0	.0	.1	.4	.5	.2	.6	1.8	1.8
80/84	.0	.0	.0	.1	.8	4.6	5.4	1.9	12.7	12.7
75/79	.0	.0	*	.1	.5	4.4	15.8	10.3	31.1	31.1
70/74	.0	.0	.0	*	.8	4.9	16.0	19.0	34.8	34.8
65/69	.0	.0	.0	.0	.1	1.1	8.7	9.1	19.0	19.0
60/64	.0	.0	.0	.0	.0	*	.1	.4	.5	.5
55/59	.0	.0	.0	.0	.0	.0	*	*	*	*
TOTAL PCT	.0	.0	*	.3	2.6	15.6	46.1	35.3	6369	100.0

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.0	.0	.0	*	*	.0	.0	*	.0	.0
*	*	.3	.7	.4	.1	.1	.1	.0	.1
.1	.9	2.4	4.5	2.3	.9	.4	.5	.0	.7
.3	1.0	3.0	12.7	9.3	2.3	.7	.4	.0	1.5
.1	.3	1.3	13.1	16.2	2.5	.3	.1	.0	.8
.1	*	.8	8.0	8.2	1.1	.1	.2	.0	.4
*	.0	*	.2	.2	*	*	*	.0	*
.0	.0	.0	.0	*	.0	.0	.0	.0	.0
.7	2.3	7.8	39.2	36.7	6.9	1.6	1.4	.0	3.4

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOURL (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	88	81	79	74	70	68	64	74.4	2126
06009	84	78	77	73	69	68	62	73.4	1527
12015	89	81	78	73	68	67	59	73.2	2096
18021	91	84	82	76	71	69	63	76.5	2421
TOT	91	82	80	74	69	68	59	74.5	8170

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOURL (GMT)	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	.2	2.0	13.1	51.3	33.4	86	1680		
06009	.0	.2	.5	7.4	46.1	45.8	88	1296		
12015	.0	.2	1.1	8.1	40.7	49.9	88	1725		
18021	.0	.7	5.7	29.1	45.8	18.7	82	2036		
TOT	0	25	180	1060	3082	2390	86	6737		

PERIOD: (PRIMARY) 1942-1978
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TABLE 17

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PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	57 60	61 64	65 68	69 72	73 76	77 80	81 84	85 88	89 92	TOT	W FOG	NO FOG
17/19	.0	.0	.0	.0	.0	.0	*	.0	*	2	.0	*
14/16	.0	.0	.0	.0	*	*	*	*	*	10	.0	.2
11/13	.0	.0	.0	.0	.1	.1	.1	.0	.0	17	.0	.3
9/10	.0	.0	*	.1	.1	.3	.1	.1	*	42	.0	.7
7/8	.0	.0	.1	.2	.3	.4	.3	.1	*	80	*	1.4
6	.0	.0	.1	.2	.4	.3	.2	*	.0	69	.0	1.3
5	.0	*	.1	.2	.4	.4	.3	.1	.0	94	*	1.6
4	.0	.0	.1	.5	.7	1.0	.7	.1	.0	174	*	3.0
3	.0	*	.3	.9	1.4	1.2	.7	.1	.0	259	.1	4.5
2	.0	*	.5	1.4	1.8	1.9	.7	.1	.0	358	.2	6.3
1	.0	*	1.2	2.6	3.6	3.0	.9	.1	.0	632	.2	11.3
0	.0	.1	2.1	5.7	5.8	5.1	1.1	*	.0	1091	.8	19.1
-1	.0	.1	2.3	5.5	5.3	4.6	.6	.0	.0	1005	.6	17.8
-2	.0	.1	2.1	3.5	3.3	2.9	.4	.9	.0	664	.3	11.9
-3	.0	.1	1.2	2.7	2.4	1.5	.2	.0	.0	432	.1	7.9
-4	.0	*	.8	1.4	.9	.7	.1	.0	.0	213	.1	3.9
-5	.0	*	.6	1.2	.8	.4	.1	.0	.0	176	.1	3.2
-6	*	*	.3	.4	.3	.1	.0	.0	.0	67	.0	1.3
-7/-8	.0	*	.4	.5	.4	*	*	.0	.0	72	*	1.3
-9/-10	.0	.0	.1	.1	.1	.0	.0	.0	.0	14	*	.2
-11/-13	.0	.0	*	*	.0	.0	.0	.0	.0	4	.0	.1
-14/-16	.0	.0	.0	*	.0	.0	.0	.0	.0	1	.0	*
-17/-19	.0	.0	*	.0	.0	.0	.0	.0	.0	2	.0	*
TOTAL										5478		
PCT	*	.7	12.4	27.5	27.9	24.0	6.7	.7	.1	100.0	2.6	97.4

PERIOD: (OVER-ALL) 1963-1978

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.1	.1	.1	.0	.0	.0	.3	.4	.2	*	.0	.0	.0	.7
1-2	*	.2	*	.0	.0	.0	.2	.1	.9	*	.0	.0	.0	1.0
3-4	.0	.1	.0	.0	.0	.0	.1	.0	.3	*	.0	.0	.0	.4
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.1
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.1	.4	.1	.0	.0	.0	.6	.5	1.5	.1	.0	.0	.0	2.1

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.5	1.0	.1	.0	.0	.0	1.6	1.2	3.0	.7	.0	.0	.0	4.9
1-2	.5	2.9	.3	.0	.0	.0	3.7	1.4	17.1	1.6	.0	.0	.0	20.1
3-4	.0	1.2	.2	.0	.0	.0	1.4	.1	10.0	3.2	.0	.0	.0	13.3
5-6	.0	.2	*	.0	.0	.0	.2	*	1.2	1.9	*	.0	.0	3.2
7	.0	.0	*	.0	.0	.0	*	.0	.2	.1	.0	.0	.0	.3
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	*	.0	.0	.0	*
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	*	*	.0	.0	.0	.1
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.1	5.2	.6	.0	.0	.0	6.9	2.8	31.5	7.5	*	.0	.0	41.9

PERIOD: (OVER-ALL) 1963-1978

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.85 90.1W

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	1.1	1.9	.6	.0	.0	.0	3.6	.3	.6	.0	.0	.0	.0	.9
1-2	.6	13.1	2.4	.0	.0	.0	16.0	.2	2.2	.4	.0	.0	.0	2.9
3-4	.1	7.2	4.0	.1	.0	.0	11.4	.*	.8	.6	.*	.0	.0	1.4
5-6	.0	1.1	2.9	.*	.0	.0	4.0	.0	.2	.4	.0	.0	.0	.6
7	.0	.3	.7	.0	.0	.0	1.0	.0	.1	.1	.0	.0	.0	.1
8-9	.0	.0	.1	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.*	.0	.0	.0	.*
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.8	23.5	10.7	.1	.0	.0	36.2	.5	2.9	1.5	.*	.0	.0	5.9

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.2	.2	.0	.0	.0	.0	.4	.1	.3	.1	.0	.0	.0	.5	
1-2	.1	.6	.1	.*	.0	.0	.7	.*	.1	.*	.0	.0	.0	.2	
3-4	.0	.2	.*	.*	.0	.0	.3	.*	.1	.0	.0	.0	.0	.1	
5-6	.0	.0	.*	.0	.0	.0	.*	.0	.0	.0	.0	.0	.0	.0	
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.3	1.0	.1	.*	.0	.0	1.4	.2	.5	.1	.0	.0	.0	.8	95.8

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	9.4	7.3	1.5	.0	.0	.0	18.2	
1-2	4.0	36.0	4.6	.0	.0	.0	44.6	
3-4	.3	19.3	7.8	.1	.0	.0	27.6	
5-6	.1	2.5	5.2	.1	.0	.0	7.9	
7	.0	.5	.9	.0	.0	.0	1.4	
8-9	.0	.0	.1	.0	.0	.0	.1	
10-11	.0	.0	.*	.0	.0	.0	.*	
12	.0	.*	.*	.0	.0	.0	.1	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	13.8	65.7	20.2	.2	.0	.0	100.0	2708

PERIOD: (OVER-ALL) 1949-1977

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	2.7	13.9	18.2	6.4	2.6	.7	.2	.1	.1	.*	.0	.0	.0	.0	.0	.0	.0	.0	.0	1680	3
6-7	.2	2.2	7.9	9.2	4.1	1.3	.6	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	945	3
8-9	.0	.9	2.5	3.5	1.9	.8	.5	.2	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	383	5
10-11	.0	.5	.8	1.1	1.2	.3	.1	.1	.1	.0	.*	.0	.0	.0	.0	.0	.0	.0	.0	156	5
12-13	.0	.0	1.3	.7	.5	.1	.1	.*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	103	5
13-15	.0	.0	.0	.6	.4	.1	.1	.*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	46	6
INDET	5.9	1.4	2.1	1.0	.3	.1	.*	.0	.*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	429	2
TOTAL PCT	8.7	19.0	32.8	22.4	11.0	3.4	1.6	.6	.4	.1	.*	.0	.0	.0	.0	.0	.0	.0	.0	100.0	4

PERIOD: (PRIMARY) 1942-1978
(OVER-ALL) 1867-1978

AREA 0037 GALAPAGOS ISLANDS
.85 90.1W

TABLE 20

PERCENT FREQUENCY OF OCCURRENCE OF SEA TEMP (DEG F) BY MONTH

SEA TMP DEG F	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANN	PCT
96+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
95/96	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
93/94	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
91/92	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
89/90	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	1	.0
87/88	.0	.0	.3	.2	.0	.0	.0	.0	.0	.0	.0	.0	3	.1
85/86	.2	.3	1.6	1.7	.2	.2	.2	.0	.2	.3	.0	.2	32	.4
83/84	1.4	3.4	7.5	7.6	2.3	.2	.2	.0	.0	.2	.0	.0	149	2.1
81/82	7.4	17.5	23.2	22.7	6.5	1.9	.7	.3	.4	1.0	.4	1.7	547	7.7
79/80	15.1	31.1	30.8	26.8	15.2	4.8	1.8	1.7	1.2	1.0	1.0	3.0	866	12.1
77/78	25.2	28.4	19.5	15.6	17.3	11.9	6.3	2.4	2.7	5.3	6.9	10.4	945	13.2
75/76	26.4	12.1	8.8	11.9	25.1	12.1	13.6	10.8	12.6	11.4	14.3	16.3	1036	14.5
73/74	17.2	4.7	4.4	7.0	19.1	18.8	20.1	17.1	16.1	17.7	18.8	25.0	1065	14.9
71/72	5.8	1.8	1.5	3.4	5.8	22.3	25.5	16.9	16.8	16.6	21.6	24.3	906	12.7
69/70	1.0	.7	1.8	.9	5.5	20.1	19.7	15.7	19.1	18.2	20.4	13.2	765	10.7
67/68	.3	.1	.7	.7	1.4	5.6	6.7	20.3	18.4	15.1	9.9	3.5	480	6.7
65/66	.0	.0	.0	.9	.9	1.7	3.8	11.4	8.8	8.7	3.2	1.7	237	3.3
63/64	.0	.0	.1	.5	.5	.2	1.3	2.7	2.1	3.4	.9	.2	70	1.0
61/62	.0	.0	.0	.0	.0	.0	.0	.7	.9	1.0	1.8	.6	30	.4
59/60	.0	.0	.0	.0	.0	.0	.0	.0	.4	.2	.6	.0	7	.1
57/58	.0	.0	.0	.0	.0	.0	.0	.0	.4	.0	.1	.0	3	.1
55/56	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
53/54	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
51/52	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
49/50	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
47/48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
45/46	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
43/44	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
41/42	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
39/40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
37/38	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
35/36	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
33/34	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
31/32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
29/30	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
27/28	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
<27	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
TOTAL	622	737	730	582	566	462	447	586	565	621	685	539	7142	100.0
MEAN	76.5	78.4	79.0	78.5	75.8	72.9	72.1	70.5	70.7	71.0	71.6	73.1	74.1	

TABLE 21

PRESSURE (MB)

AVERAGE BY HOUR (GMT)

MO	0000	0300	0600	0900	1200	1500	1800	2100	MEAN	TOTAL OBS
JAN	1010	1012	1012	1010	1011	1013	1012	1009	1011	705
FEB	1009	1010	1011	1010	1010	1011	1011	1009	1011	797
MAR	1009	1010	1011	1009	1010	1012	1011	1008	1011	802
APR	1010	1010	1011	1009	1011	1012	1012	1010	1011	764
MAY	1011	1012	1012	1010	1012	1013	1013	1010	1012	675
JUN	1012	1012	1014	1012	1013	1014	1014	1012	1013	482
JUL	1012	1015	1014	1012	1013	1015	1014	1012	1013	507
AUG	1012	1015	1014	1010	1013	1016	1015	1011	1014	621
SEP	1012	1015	1014	1013	1013	1016	1014	1011	1013	612
OCT	1012	1014	1014	1013	1014	1015	1014	1011	1013	648
NOV	1012	1013	1013	1013	1013	1014	1013	1010	1013	618
DEC	1010	1012	1013	1011	1013	1012	1013	1010	1012	544
ANN	1011	1013	1013	1011	1012	1014	1013	1010	1012	7775
OBS	1537	500	1251	180	1478	522	1951	346		

PERCENTILES

MO	MIN	1%	5%	25%	50%	75%	95%	99%	MAX
JAN	1001	1006	1008	1010	1011	1013	1014	1016	1018
FEB	999	1005	1007	1009	1011	1012	1014	1016	1022
MAR	1001	1005	1007	1009	1011	1012	1013	1014	1019
APR	1004	1006	1007	1010	1011	1012	1013	1016	1017
MAY	1002	1007	1009	1011	1012	1013	1015	1016	1021
JUN	1004	1008	1010	1012	1013	1014	1016	1016	1021
JUL	1008	1009	1010	1012	1013	1014	1017	1018	1020
AUG	1001	1001	1010	1012	1014	1015	1018	1018	1019
SEP	1002	1009	1011	1012	1013	1015	1017	1019	1020
OCT	1003	1009	1010	1012	1014	1015	1017	1018	1020
NOV	1001	1007	1009	1012	1013	1014	1016	1017	1021
DEC	1000	1003	1008	1011	1012	1013	1015	1017	1021

